NOTES

ON THE

GYNECOLOGICAL LECTURES

DELIVERED BY

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PREFACE.

This series of notes on the Lectures and Clinics of Prof. W. Easterly Ashton is the outcome of a request from a number of the members of the present Senior Class that the compilers put in printed form the material collected both in lecture room and clinical amphitheatre.

The design is not to give a verbatim report, but rather a classified arrangement of the essential points which form the groundwork of the subject.

If they lessen the labor of the student, or in any way aid him in the work of his last and most trying year in college, their purpose will have been accomplished.

History Taking.

Histories are taken from Symptoms.

SUBJECTIVE—Those related by patient.

OBJECTIVE—Those discovered by physician.

ECTIVE SYMPTOMS.

. Name and residence.

. Social state; single, married, widow.

Age—Four periods.

1. Before puberty.
2. Child bearing.
3. Menopause.
4. Senility.

Occupation; Important as a cause of disease and for treatment.

Habits.

1. Exercise—Amount and character.
2. Diet.
3. Baths.
4. Clothing—Corset, especially injurious. Skirts should be supported from shoulder.

Menstrual history—Each woman a law unto herself.

1. Puberty—Age when became a woman, usually 13-14, may be 18 or more.
2. Type—28 days as a rule.
3. Quantity—2 to 9 ounces as a rule.
4. Duration—2 to 7 days.
5. Functional diseases.
   - A. Amenorrhea.
   - B. Dysmenorrhea.
   - C. Menorrhagia or Metrorrhagia.
   - D. Clots—Vaginal, large and thick, passed after reclining. Uterine, small, tough, passed at any time.
   - E. Shreds, suspect :
     1. Membranous dysmenorrhea.
     2. Ectopic gestation.

. Child bearing history.

1. Number of children.
2. Age of youngest.
3. Miscarriage, danger due to lack of care. If before birth of last child, no harm done to generative organs. If after, probably some tubal or ovarian disease exists.
4. Character of labors, easy or hard, if instruments

used, if septic or fevers occurred, about getting up, &c.

VIII. Discharges between periods.

Leucorrhœa, any discharge, not blood, from genital parts.

A. Mode of onset.

If gradual, probably innocent.

If sudden, suspect gonorrhœa.

B. Character; odor, color, consistency.

Sanguineous. Mucopurulent.

Watery. Purulent.

IX. Pain.

1. Character.

A. Spontaneous; sharp, always present, indicates acute condition.

B. Evoked; brought on by stooping, walking, sitting, etc., usually dull, indicates chronic condition.

2. Location.

Inguinal region, generally shoots down thigh, on left side especially, due to fusion of left duct of Muller a little in advance of right.

Lumbo-sacral, due usually to posterior displacements.

Mammary regions, especially left; reflex.

Headache, often from eyes.

3. Time and manner of onset—Before, during or after menses.

X. Bladder symptoms. Micturition.

1. Frequency—normally more frequent during menstruation.
2. Pain—before, during or after micturition.
3. Difficulty in micturition.

XI. Bowel symptoms.

1. Constipation—lack of exercise or neglect.
2. Diarrhœa—usual during menstruation.
3. Incomplete evacuations, caused by tumor, retro-displacements, etc.
4. Discharge—mucous, or bloody from piles, tumor or retro-displacements.

XII. General condition—Don't overlook lesions in heart, lungs or kidneys, or nervous conditions.

XIII. Family history.

XIV. Present symptoms—What brings her to you?

OBJECTIVE SYMPTOMS.

Discovered by physical examination, with patient on table or bed—if latter, use ironing board.

Examine virgin by rectum if possible; if vaginal examination necessary, etherize to avoid rupturing the hymen and to lessen pain by relaxing the parts.

Touches.

1. Vaginal touch or indigation.
2. Rectal touch.
3. Urethro-vesical touch.
4. Combined touch.
5. Abdominal touch or palpation.

Physical Examination.

EXAMINATION OF ABDOMEN.

Methods employed are inspection, percussion, auscultation, palpation, combined touch and mensuration.

Inspection: note shape, symmetry, marks, linea-striæ, pigmentation, nodules of tumor, etc.

Percussion.

Tumor; tympany at side, dull over tumor.

Ascites; tympany on top, dull below, and in flanks.

Pregnancy; tympany in iliac regions, dull anteriorly.

Fat; wave stopped if edge of hand placed in median line.

Auscultation; of use in pregnancy; fetal heart, souffles, etc.

Palpation; characteristics, symmetry, surface of new growths, if smooth or nodular.

Combined touch; union of two touches.

Mensuration; measure from ensiform cartilage to anterior superior spines, and from umbilicus to anterior superior spines.

EXAMINATION OF EXTERNAL GENERATIVE ORGANS; use inspection and touch.

Inspection; general condition, anemia, inflammation, tumor, discharge, etc.

Touch; tumor, edema, heat, etc.

EXAMINATION OF RECTUM, URETHRA AND BLADDER, use inspection and touch.

EXAMINATION OF VAGINA, use inspection, indigation, and bi-manual examination.

Inspection; varicose veins, perineal lacerations, caruncles.

Indigation; insert finger as near perineum as possible, look for cystocele, rectocele, lacerations, and new growths; note also the positions of the cervix.

Bi-manual examination; try to find fundus anteriorly. If not found, examine posteriorly for it. Examine also ovaries and tubes.

INSTRUMENTS NECESSARY FOR EXAMINATION.

1. Speculum.

Goodell's bi-valve. Should be three inches long and blades heavier than handle.

Syme's single valve.

2. Dressing forceps, to remove secretions from vagina and cervix, and to make applications.
3. Tenaculum, to detect lacerations and erosions.
   Single; double, or Bullet forceps.
4. Uterine sound; never use unless patient anesthetized and vagina thoroughly sterilized.
5. Uterine dilator, large and small (pilot).
6. Curette; always use sharp curette, dull one useless.
7. Rectal speculum; large and small, throws direct light into rectum.
8. Urethra and bladder, direct light speculum.
9. Tape measure to detect tumors.
10. Aspirating needle. (Condemned by Ashton.) Danger of infection or of perforating intestines.
11. Thermometer; aids in diagnosing presence of pus.

CLEAR UP DIAGNOSIS BY

1. Microscopical examination of
   a. Discharges from uterus, vagina and bladder.
   b. Scrapings from uterus.
2. Urinalysis; chemical and miscroscopical.
3. Exploratory incision into abdomen to make or confirm diagnosis.
4. Anesthesia; especially in fat or muscular women, or rigid abdomen.

Gynecological Positions.

1. Erect.
2. Horizontal.
3. Dorsal.
   Dorsal-recumbent.
   Dorsal-elevated.
   Dorso-sacral.
4. Syme's or semi-prone.
5. Genu-pectoral.
   Genu-pectoral (true).
   Genu-pectoral, exaggerated.
   Genu-elbow.
6. Trendelenburg.

ERECT POSITION.

Correct; when occiput, shoulders, buttocks and heels are in a straight line, as if standing against a wall.

Incorrect; any other than above; leaning forward causes many diseased conditions, especially displacements.

Advantages of erect position.

1. Obstetrical.

Ballottement; brings cervix nearer vulvar orifice.
First stage of labor; aids dilatation by gravity.

2. Gynecological (one foot on chair).
Accurate diagnosis of displacements.
Accurate rdjustment of pessary.

HORIZONTAL POSITION; patient on back, legs extended; the best position for inspection and palpation of abdomen.
Inspect bony walls of abdomen and any irregular contour.
Palpate for tumors, tenderness, pain, etc.

DORSAL POSITION; on back, best of all positions for examination as it gives complete relaxation of abdominal wall, allowing deeper palpation.
Dorsal-recumbent; patient on back, limbs elevated.
Dorsal-elevated; body flexed toward lower extremities which are elevated.
Dorso-sacral; body flat, thighs flexed on abdomen and fixed by sheet around shoulders and thighs.

SYME'S OR SEMI-PRONE POSITION; lying on left chest and left cheek, left arm over table, body bowing, left leg slightly flexed, right leg completely flexed on body, right knee touching table in front of left leg.
Used for examination of and operations on cervix and vaginal wall, and for fistula operations.

GENU-PECTORAL OR KNEE-CHEST POSTION.

1. Genu-pectoral (true); patient on chest and knees, left face on table, left arm over table, thighs forming right-triangle with table.
2. Exaggerated knee-chest position; patient on chest and toes. Of especial service in replacing retro-displacements.
3. Knee-elbow; on knees and elbows; causes less strain on patient.

Uses of genu-pectoral positions.
Obstetrical; to reposit prolapsed cord and to release shoulder impaction.
Gynecological; to introduce pessary, replace retro-displacements and for rectal examinations.

TRENDELENBURG'S POSITION; purely operative. Shoulders braced, body elevated; this drops all abdominal and pelvic viscera toward diaphragm.

Inflammatory Diseases of Uterus.

ENDOMETRITIS. 2. METRITIS.

ENDOMETRITIS.

Inflammation of lining membrane of uterus.

VARIETIES.

1. Congestive } Simple varieties, no pus, slow onset;
2. Constitutional } caused secondarily by dormant germs.
3. Septic } Dangerous, rapid onset, purulent; caused
4. Gonorrheal } directly by germs.

CAUSES.

I. Congestive variety—Blood retained by some obstruction to return circulation.
   1. Uterine displacements.
   2. Cold.
   3. Stenosis.
   4. Sub-involution.
   5. Laceration of cervix.
   6. Constipation.
   7. Sexual excess.
   8. Tumor.
   9. Pelvic adhesions.

II. Constitutional variety, caused by disease in organs or parts other than uterus; they seem to affect the blood current.
   1. Scrofula.
   2. Anemia,
   3. Phthisis.
   4. Syphilis.

III. Septic variety, directly follows a primary infection.
   1. Labor.
   2. Aborton.
   3. Sloughing polyp.
   4. Dirty instruments.
   5. Malignant disease.

IV. Gonorrheal variety, always the gonococcus.

SYMPTOMS—depend upon variety and cause.

A. Subjective symtoms depend upon cause.

B. Direct symptoms.
   1. Leucorrhea, of slow onset.
   2. Abortion, due to changes in mucous membrane.
   3. Sterility.
      A. Mucous membrane so changed that egg cannot find lodgment.
      B. Mucous plug in cervical canal prevents ingress of spermatozoa.

II. Septic and Gonorrheal varieties.
   1. Onset sudden, acute, severe symptoms from first
   2. Constitutional symptoms.
      Succession of chills, fever, rapid pulse.
      May have local peritionitis, indicated by pulse rather than temperature.

PHYSICAL SIGNS.

I. Simple varieties.
   1. Discharge from cervical canal, seen only with speculum.
   2. Uterus not enlarged or tender because parenchyma not involved.
   3. Condition of other pelvic organs; if ovaries and tubes free, not gonorrheal or septic.
   4. Condition of uterus and cervix, if discharge,

take history and find cause.
(Uterine discharge thicker and more ropy than vaginal.)

II. Septic and Gonorrheal varieties.
1. Uterus always enlarged and tender.
2. Discharge from cervix, sudden origin.
3. Cervix more or less swollen and congested.
(If tubes and ovaries involved always started from septic or gonorrheal variety.

PROGNOSIS depends upon—

I. Cause.
1. Acute suppression; recovery the rule.
2. Displacements; recovery.
3. Scrofula, tuberoulosis, etc., very bad.
4. Septic and gonorrheal; bad because pelvic organs are soon involved, unless promptly treated.
5. Simply variety shows no tendency to self-cure.

II. Pelvic complications.
1. If no lesions on examination, more favorable.
2. In septic variety the oviducts may be involved without being discovered, as it may take septic variety some time to show itself.

III. Promptness of treatment.

TREATMENT—indications.

I. Remove cause.

II. Remove results of inflammation upon mucous membrane.
1. Congestive variety—treat cause and results at same time. Example: replace displacement.
2. Constitutional variety—treat the constitutional trouble; when this is cured allow a few months to get well; if no improvement treat condition.
3. Septic and gonorrheal varieties, both dangerous; only one treatment. Currette and flush. Never make any intra-uterine applications in your office; always treat as a surgical condition and use thorough aseptic precautions.

CURETTEMENT—Steps of operation, patient anesthetized.
1. Dilation—always neceassary in chronic cases.
2. Curettement—with sharp curette; avoid puncturing uterus, use finger as guide.
3. Flush—recurrent catheter or glass tube, use either.
a. Plain sterile water as hot as hand can bear, or

b. Acidulated corrosive sublimate solution 1-2000 or 1-4000.

4. Paint with Churchill's Tincture of Iodine, especially in septic and gonorrheal variety. Carbolic acid may be used, but is unnecessary.
5. Don't pack uterus except for hemorrhage. Gauze don't drain and uterus is in excellent position for natural drainage.
6. Subsequent treatment; patient in bed, 1-4000 bichloride douche twice a day, followed by sterile water douche to remove the mercury. Don't dry vagina after douche—danger of infection.

CONTRA-INDICATIONS FOR CURETTEMENT.

1. Diseased Appendages—may waken a chronic to an acute process and serious results may follow.
2. Pelvic adhesions—for same reason. It may be necessary to remove uterus and appendages. There are no contra-indications in septic and gonorrheal varieties.

Metritis.

Inflammation of the parenchyma of the uterus.

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1. ACUTE. 2. CHRONIC.

ACUTE METRITIS—Almost always associated with endometritis.

CAUSES.

1. Extension of inflammation.
2. Septic infection.
3. Congestion.
4. Gonorrhea.

Extension of Inflammation.

1. From within—endometritis and vaginitis.
2. From without—peritonitis.

Septic Infection.

1. Labor.
2. Abortion.
3. Instruments.
4. Operations.
5. Sloughing polyps.
6. Office Examination

Congestion.

1. Cold.
2. Excessive venery—prostitutes.

Gonorrhea, infrequent. Usually begins as vaginitis, then passing up causes endometritis, salpingitis and may cause peritonitis. Rarely it attacks metrium.

RESULTS—usually self-limited, lasting 1-2 weeks.

1. Recovery by resolution.
2. Becomes chronic—chronic metritis.
3. Abscess formation.

SYMPTOMS.

Constitutional.

1. Chill.
2. Elevated temperature.
3. Rapid pulse, more valuable than temperature.
4. Digestive disturbances; nausea, vomiting, diarrhœa.

Local—depends upon organ itself.

1. Fullness in lower abdomen.
2. Sense of weight.
3. Constant pain and tenderness in uterus.

Physical Examination.

1. Tenderness on suprapubic pressure.
2. Enlarged uterus.
3. Acute pain on bimanaul examination.
4. Cervix swollen and soft.

DIAGNOSIS—depends upon history, symptoms and physical examination.

History—important as often locates cause.

Symptoms.

1. Referred to uterus—pain and tenderness.
2. Chill or succession of chills.
3. Elevated temperature.
4. Rapid pulse.
5. Nausea, vomiting and diarrhœa.

Physical Examination.

1. Tenderness on pressure over uterus.
2. Enlarged Uterus.
3. Pain.

May confound with LOCALIZED PERITONITIS—exclude by

1. History of present or previous attacks.
2. Gross lesions on one side or other of uterus.

Multiple abscess—impossible to diagnose positively. Approach by elimination. High temperature and rapid pulse best guides. If symptoms continue after one curettement, curette a second time. If they still continue, perform complete hysterectomy. If attending physician has already curetted, you must curette anyway.

PROGNOSIS depends upon

1. Cause.
2. Promptness of treatment.
3. Complications.

TREATMENT—referred to cause.

1. Extension of inflammation from peritoneum; treat as for peritonitis.

Rest, liquid diet and salines.

Hot water douche, two gallons twice a day.
Morphine for pain.
Counter irritation on abdomen, hot plate or mustard plaster.
Quinine for fever.

2. Acute from within—same treatment.
3. Septic, curette and flush—stimulate with whiskey.
4. Gonorrheal—curette and flush.
5. If pus formed and not cured by above treatment, do a complete hysterectomy. Delay operation if patient has not sufficient vitality to withstand shock.

CHRONIC METRITIS, or Chronic Areolar Hyperplasia. Enlargement of the uterus due to hypergenesis of its tissues.

CAUSES.

1. Interference with involution—Normally, after labor, muscular fibres undergo fatty degeneration, fat is absorbed and involution complete at end of eight weeks.
2. Chronic congestion, from displacements, etc.
3. Hyper-nutrition, induced by irritation by tumor, etc.

I. Interference with involution.
   1. Getting up too soon, heavy uterus by its weight stretches ligaments causing flexion with cutting off of circulation.
   2. Septic conditions.
   3. Abortions—due to uterus not being ripe for normal influences and to getting up too soon.
   4. Lacerations of cervix—constant irritation brings extra amount of blood to part.

II. Chronic congestion.
   1. Uterine displacements.
   2. Pelvic tumors and adhesions.
   3. Excessive intercourse.
   4. Cardiac lesions.
   5. Chronic constipation—tilts cervix forward causing displacement.
   6. Standing on feet, causes blood stasis; shop girls especially.
   7. Neglect of bladder causes displacement.

III. Hyper-nutrition.
   1. Endometritis.
   2. Uterine growths.

VARIETIES.

1. Entire uterus—rather common.
2. Neck of uterus—chiefly, due to lacerations.
3. Body of uterus—uncommon.

STAGES.

1. Enlargement stage; uterus increases in weight and size, soft from congestion and full of blood.
2. Atrophic stage; uterus pale, hard and carilaginous, due to mechanical interference with the blood supply by the new tissue.

DURATION, uncertain.

1. Menopause may relieve symptoms if not too far advanced, usually to chronic.
2. If connective tissue is much involved, no cure.
3. Atrophic stage, no help.

SYMPTOMS, depend upon cause and complications.

1. Leucorrhea, always associated with inflammation of endometrium.
2. Bearing down weight in abdomen, due to increased weight.
3. Difficulty in walking, from distress.
4. Pressure on rectum and bladder, from displacement.
5. Pain in breast, left especially.
6. Excessive menstruation, from chronic congestion.
7. Abortions.
8. Sterility.
9. Headache; vertical and occipital.
10. Pigmentary deposits, especially around areola and on forehead,
11. Nervous symptoms and nervous prostration.
12. Digestive disturbances, nausea and vomiting.
13. Improper circulation; cold hands and feet, due, not to disease, but lack of exercise.
14. Amenorrhea in second stage, no blood to flow.

PHYSICAL EXAMINATION—Dont use sound, use touch.

1. Cervix longer and larger than normal; may resemble prolapse.
   CHRONIC METRITIS—fundus in normal location, vaginal vault unchanged.
   PROLAPSE—fundus lower than normal, vaginal vault obliterated,
   Difficulty in diagnosis, due to drawing out of uterine ligaments by uterus.
2. Whole uterus enlarged; diagnose from fibroid and pregnancy.
   PREGNANCY—History of suppressed menses and signs of pregnancy, cervix soft.
   CHRONIC METRITIS—cervix hard, body soft, inelastic.
   FIBROID—history of irregular menstruation, gradual onset, no cause apparent, uterus intense-

ly hard, especially if fibrous tissue predominates, nodules often felt.

TREATMENT

1. Find cause and remove it.
2. Remove hyperplasia.
3. Improve condition of general system.
4. Care of bowels.
5. Care of skin.

CAUSE.

1. Laceration of cervix; amputate or perform Emmet's operation.
2. Uterine displacements; correct the displacement, surgically or by using tampons, etc.
3. Endometritis; curette.
4. Hypertrophy of cervix; amputate at once, not clean cut but take out a wedged-shaped piece on each side and join raw surfaces.

I. HYPERPLASIA—Treatment local.

A. VAGINAL INJECTIONS of hot water, the primary effect is dilation of blood vessels, secondary effect is contraction of blood vessels, this secondary effect must be obtained.

DIRECTION FOR VAGINAL DOUCHE.

1. Water as hot as woman can bear elbow in it, then temperature gradually increased.
2. Woman in dorsal position, to get water around cul de sac; vagina closed if not in proper position.
3. Apply for at least 15 minutes, hence one or two gallons will be needed, using ¼ inch hose.
4. Use night and morning.

B. LOCAL DEPLETION, 1 to 4 times a week.

Directions.

1. Introduce speculum and expose cervix.
2. Make 3 to 10 punctures in cervix, with a clean bistoury, about ¼ inch deep, making a ¼ turn before withdrawing.
3. Induce bleeding with *warm* water.
4. Stop bleeding, when sufficient blood lost, with *hot* water.
5. Tampon vagina when bleeding stopped to prevent blood soiling patient's clothing.

C. TAMPON VAGINA 3 times a week.

Directions.

1. Use cotton-wool tampon.
2. Saturate it thoroughly with 10 per cent. solution of icthyol in glycerine or plain glycerine.

D. PAINT VAGINAL WALLS with Churchill's tincture of iodine.

Formula as follows:

R.	Tincturæ iodi	fl. dr. iiss.
	Potassii iodide	gr. xxx.
	Aquæ destillatæ	fl. oz. ss.
	Spiritus rectificati q. s. ad.	fl. oz. ii.

III. General Treatment.

1. Rest; especially at menstrual period. Between periods should get much sleep; lie down for an hour twice a day to remove weight of uterus from ligaments and allow free circulation for a time. During menstrual period rest must be absolute, in bed, in a horizontal position.
2. Fresh air—A. Gentle exercise in open air walking or driving just enough to fatigue.
   B. Good ventilation, especially at night.
3. Symptomatic.
   Uterine tonic, quinine and ergot, to contract fibres.

R.	Quininæ sulphatis,	gr. i.
	Ergotinæ,	gr. ii.
	Extracti nucis vomicæ,	gr. ¼.

   B. Nervous symptoms—bromides, especially of sodium.
   C. Pain—bromide of sodium.
   D. Blood tonic—iron.

IV. Bowels—should be opened every day; mild laxatives best,

1. Cascara sagrada.
2. Phosphate of soda.
3. Granular effervescing phosphate of soda, dr. ii. ½ hour before breakfast, and dr. i. before going to bed.

The ideal condition of bowels is a good soft movement every day.

V. Skin.—Bathe frequently to open pores and keep them open; follow bath by brisk rub with coarse towel.

Functional Disorders of the Uterus.

Symptoms *not* diseases.

Amenorrhea—Scanty or absent menstruation.
Dysmenorrhea—Difficult or painful menstruation.
Menorrhagia—Excessive menstruation.
Metrorrhagia—Hemorrhage from the genital tract between periods.

Amenorrhea.

VARIETIES.

1. Physiological.
2. Acquired.
3. Congenital.

I. Physiological—before puberty, during pregnancy, after menopause, during lactation. Important because woman may try to impose on you. Menstruation may occur during pregnancy or lactation.

II. ACQUIRED CAUSES.

1. Local. 2. General.

Local :

1. Chronic areolar hyperplasia, second stage.
2. Sudden suppression from cold.
3. Atresia from laceration, operation or strong applications.
4. Removal of uterine appendages.
5. Atrophy of uterus from super-involution.
6. Acute pelvic inflammation.

General :

1. Any exhausted state of system, as from phthisis, malaria, anemia, syphilis, nervous prostration, poor food, excessive work, bad hygiene, etc.; can't afford blood to menstruate.
2. Mental emotion; joy, sorrow, fear of pregnancy.
3. Physical shock, railroad accident.
4. Excessive obesity, rapid increase in weight. Many die barren.
5. Plethora, high living and little exercise.
6. Change of country; especially seen in Irish emigrants.

III. CONGENITAL CAUSES.

1. Arrested development of internal organs.
2. Absence of uterus or ovaries.
3. Atresia of some part of genital track, as imperforate hymen. This dams up blood and gives rise to
   - A. Hematosalpinx, tubes filled with blood.
   - B. Hematometra, uterus filled with blood.
   - C. Hematocolpos, vagina filled with blood.

SYMPTOMS.

Scanty or absent menstruation is the only one.

DIAGNOSIS is to determine the cause.

1. Early pregnancy.
   - A. Softening of cervix; soft as tip of nose, non-gravid; soft as lips, gravid.
   - B. Wait two or three months and get characteristic signs.

2. Dysmenorrhea.
   - A. Characteristic symptoms of obstruction.
   - B. Characteristic flow, clots, etc.
   - C. The obstruction is only temporary.

PROGNOSIS depends on cause entirely.

VICARIOUS MENSTRUATION.

1. No hemorrhage from the genital tract at menses, but bleeding from gums, piles, nipple, or some other part of body.

SUPPLEMENTARY MENSTRUATION is normal menstruation with vicarious added.

TREATMENT—Treat the cause always.

1. CHRONIC METRITIS, second stage; no cure, but "jolly" them along.
2. SUPPRESSION from cold or pelvic inflammation.
   - A. Rest in bed.
   - B. Salines.
   - C. Mustard to lower abdomen.
   - D. Hot hip baths.
   - E. Warm vaginal injections.
   - F. Morphia if necessary.
3. ATRESIA from operation, applications, etc.
   - A. Open it.
4. REMOVAL of uterine appendages.
   - A. Won't menstruate again,
   - B. Rare exceptions, menstruate anyhow (get in the habit and can't stop.)
5. SUPERINVOLUTION to two inches or below, hopelessly atrophied; above two inches, give general treatment.
   - A. Exercise.
   - B. Good food.
   - C. Tonics.
   - D. Permanganate of potash, apiol or manganese dioxide to draw blood to the part.
   - E. Electricity of little use.
   - F. Stem pessary, don't use.
6. EXHAUSTED system; treat cause.
   - A. Bad hygiene, correct diet, send to country, etc.
   - B. Neurasthenia, give rest; send to a specialist.
7. MENTAL EMOTION; treat general constitution of patient and give time for nature to restore.
8. OBESITY.
   - A. Salines.
   - B. Exercise.
   - C. Careful diet.
   - D. Drugs as above to draw blood to uterus.

10. PLETHORA; correct the habits.
11. LACK OF DEVELOPMENT OR ABSENCE OF INTERNAL ORGANS; no cure.

A. Treat constitution and get in good condition.
B. Get their mind off the trouble.

VICARIOUS MENSTRUATION.

A. Don't treat nipple, piles, gums, etc.
B. About time to menses try to draw blood to the part by
   1. Manganese dioxide. apiol, etc.
   2. Warm vaginal douches.

ALL CASES, regardless of cause, need general treatment.

A. Bowels.
B. Diet.
C. Skin.
D. Exercise.

+ Dysmenorrhea.

Painful or difficult menstruation.

FORMS.

1. Neuralgic.
2. Diathetic.
3. Congestive.
4. Undeveloped genitalia.
5. Obstructive.
6. Membranous.

I. NEURALGIC; occurs in anemic, malarial, hysterical and neurasthenic patients.

Symptoms.

Pain, sharp and cutting, starts as soon as uterus congests; stops with onset of flow, as congestion is relieved.

Diagnosis.

1. Physical examination negative.
2. Character of pain, with time of onset and termination.
3. General history of patient.

II. DIATHETIC; in gouty and rheumatic diatheses.

Symptoms.

Pain, always erratic, nothing characteristic.

Diagnosis.

1. Physical examination excludes local causes.
2. Family history gives diathesis.
3. Urinary analysis.

III. CONGESTIVE.

Causes.

1. Cold, not sufficient to cause amenorrhea.
2. Plethora.
3. Uterine displacements, ante-flexion most common.
4. Uterine fibroids or polyps.
5. Acute or chronic disease of uterus or its appendages.
6. Pelvic adhesions.
7. Prolapsed ovaries.

8. Variocele of broad ligament.

Symptoms.

1. Pain, dull, aching, precedes the flow.
2. Constitutional symptoms in acute cases, chill, fever, rapid pulse, dry skin, etc.

Diagnosis.

1. In acute cases, as from cold.
   A. Sudden onset. B. Constitutional symptoms
2. Other cases,
   By physical examination.

IV. UNDEVELOPED GENITALIA.

Diagnosis.

1. Exclude other causes.
2. Determine size of uterus by bimannal examination or etherize and use sound.
3. Determine size of tube or ovary by bimanual examination; after long experience.

V. OBSTRUCTIVE. The most frequent form. It is either congenital or acquired.

Causes.

1. Stricture of cervical canal.
2. Uterine displacements associated with flexion.
3. Flexions of uterus narrow canal and congest mucous membranes.
4. Fibroids or polyps cause congestion of mucous membrane, which obstructs flow.

Symptoms.

1. Pain before flow begins, resembles labor pains; blood accumulates in uterus, and can't get out, until by a contraction with a paroxysmal pain it is forced past the obstruction.
2. Pain ceases with onset of flow, but comes on as blood accumulates again.
3. This is repeated until blood ceases to flow into the uterus.

Diagnosis.

1. Symptoms. 2. Physical examination.

VI. MEMBRANOUS. Probably due to inflammation of endometrium.

Symptoms.

1. Resemble obstructive to some extent.
2. Pain is paroxysmal and ends for that period with expulsion of whole or part of a membranous cast of the endometrium.

Diagnosis.

1. Temporary obstruction to flow.

2. Pain ceases for that period with expulsion of membrane.
3. Examine flow for membrane.

TREATMENT OF ALL FORMS..

1. Determine the cause.
2. Remove the causes.
3. Treatment of attack.

I. NEURALGIC.

1. Treat the general condition; as malaria or anemia.

II. DIATHETIC.

1. Treat the diathesis, such as gout or rheumatism; hot air treatment is the best.

III. CONGESTIVE.

I. Plethora.

A. Diet.
B. Exercise.
C. Good habits.
D. Skin.
E. A few days before the period.
1. Give salines in excess to deplete.
2. Hot water vaginal douches, two or three daily for two or three days.
3. Liquor sedans.

2. Cold.

A. Bed.
B. Salines.
C. Mustard foot baths.
D. Hot sitz bath.

3. Inflammation of uterine appendages or localized peritonitis.
Treat these conditions.
4. Uterine displacements, usually flexions.
Treat that condition.
5. Uterine fibroids or polyps.
A. Remove fibroid or polyp.
B. Salines, especially just before the period, when the patient should be required to lie down two or three days.

IV. UNDEVELOPED GENITALIA. No cure.

A. Try to relieve paroxysms of pain.
B. Extirpation of organs, when patient insists on such operation on account of the intense pain.

V. OBSTRUCTIVE—most frequent form and generally due to anteflexion.

1. Atresia, congential or acquired.
A. Etherize.
B. Dilate first with "pilots," then with heavy dilators.
2. Fibroids or polyps.
A. Remove same.
3. Displacements; generally flexions.
A. Etherize.

B. Rapid dilatation to one or one-and-a-half inches.
C. Curette to remove results of flexion.
D. Irrigate.
E. Swab out with gauze.
F. Pack with narrow gauze one inch wide; pack full and leave twenty-four to forty-eight hours.

Prognosis.—80 per cent. of all cases are cured and all benefited. For the 20 per cent. not cured,

1. Wait six months.
2. Repeat the operation as above.
3. If not cured this time, do not operate again.

IV. MEMBRANOUS; Treat the causal endometritis.
A. Etherize. D. Flush with antiseptic solution.
B. Dilate. E. Apply iodine.
C. Curette. F. Do not pack.

ACUTE ATTACK.

1. Antipyrin, 5 gr. doses every half hour for three hours, for pain.
2. Sulphate of morphine, gr. ⅙ with atropine, gr. 1-150, hypodermically for pain.
3. Apiol, minims iii. four times a day. To ward off attack, start apiol two or three days before period.
4. Apply heat to lower abdomen and sacrum.
5. Rest in bed.

Menorrhagia and Metrorrhagia.

Pathological bleedings from the uterus.

MENORRHAGIA—excessive menstrual flow as a result of either

1. Increased number of days' flow.
2. Increased quantity each day.
3. Shortening of time between periods.

METRORRHAGIA—uterine hemorrhage between menstrual periods.

CAUSES:

1. Local. 2. General.

LOCAL:

1. Uterine in origin. 2. Tubo-ovarian.
3. Pelvic, other than above.

1. Uterine:
A. Chronic areolar hyperplasia, first stage.
B. Vegetative endometritis, constantly irritates and congests.
C. Tumors.
D. Uterine displacements cause congestion.
E. Malignant disease of uterus, tissue breaks down and hemorrhage follows.

F. Incomplete abortion; part of fetus or membranes retained.
G. Fibroids or polyps; irritate and congest.
H. Lacerations of the cervix.

2. Tubo-ovarian:
Both acute and chronic forms of these diseases.

3. Pelvic, not related to generative organs.
A. Fecal impaction causes congestion; diagnose by pressing one finger on mass, through vaginal wall and pitting; give strong purgative and confirm.
B. Tumors of pelvis, as hematocele of broad ligament
C. Distended bladder.

GENERAL.

1. ACUTE AND CHRONIC diseases.
A. Acute fevers.
B. Cholera.
C. Chronic disease of heart, lung or liver.
D. Malaria.
E. Syphilis.
F. Lead and phosphorous poisoning.
G. Bright's disease.

2. Reflex conditions.
A. Impression on nervous system in marriage, lactation, great joy, sorrow, puberty and menopause.
B. During pregnancy (rare.)

3. Idiopathic—obscure, cannot be found.

PROGNOSIS—depend upon the cause.

1. Displacements, emotion, etc., good.
2. Malignant disease; bad.
3. All grades between the two.

SYMPTOMS:

1. Excessive bleeding from the uterus.
2. Associated symptoms are vertigo, pallor, headache, rapid pulse, etc.

DIAGNOSIS; depends on recognition of the cause.

TREATMENT:

1. Find cause.
2. Remove cause.
3. Treat symptoms, if you cannot find cause.

1. LOCAL CAUSES, whether uterine, tubo-ovarian or pelvic.
1. Determine cause.
2. Remove it.

2. GENERAL CAUSES:
Treat the general condition medically.

3. IDIOPATHIC or unknown causes.
   A. Local.
      1. Patient in bed with hips elevated.
      2. Injection of hot water as described under Metritis.
      3. Tampons of gauze in vagina.
      4. If bleeding slight, pack two thirds full.
      5. If bleeding severe or perineum not intact, pack full and use T bandage.
      6. In packing, first pack posterior vaults, then anterior, then lateral and finally the cavity of the vagina.
      7. Remove packing in twenty-four hours and give another hot water douche.
      8. If necessary pack vagina again.
      9. If not, give hot douche, morning, noon and night.
   B. Drugs Used.
      1. Fluid extract of ergot; ergot in pill gr. ii.t.i.d.
      2. Hydrast's, atropia, cotton root, bromides, especially sodium bromide, liquor sedans of Parke, Davis & Co., dilute sulphuric acid, oil of erigeron and viburnum.
   C. General.
      1. Bowels, diet, exercise, skin.
      2. Keep up medicines between periods.
      3. Stop sexual intercourse during treatment.

Uterine Displacements.

Any deviation from the normal position (fundus lying anteriorly, cervix pointing posteriorly and to the left.)

KINDS.

1. Version—displacement of whole organ.
2. Flexion—displacement of part of organ with formation of a curve in walls and canal; a slight anterior curve is normal, but a posterior curve is always pathological.

VARIETIES.

1. Anterior displacements.
2. Posterior or retro-displacements.
3. Lateral displacements.
4. Downward displacements or prolapse.
5. Upward displacements or ascent.

ANTERIOR DISPLACEMENTS; never pathological unless they cause sterility or dysmenorrhea, when dilatation and curettement are indicated.

RETRO-DISPLACEMENTS—uterus usually bound down by adhesions.

Flexions occur at isthmus as a rule.

CAUSES—Congenital (rare) and acquired.

Acquired Causes.

1. Labor or miscarriage.
2. Subinvolution.
   - A. Getting up too soon.
   - B. Lying on back too long.
   - C. Laceration of cervix.
   - D. Laceration of perineum.
   - E. Sepsis.
3. Tumors.
4. Adhesions.
5. Distended bladder or rectum.
6. Fall or blow.

SYMPTOMS.

1. Pain.
   - A. Bearing down pain and weight in pelvis.
   - B. Backache—pressure on sacral nerves.
   - C. Shooting pains down legs—pressure on sacral plexus.
   - D. Inguinal region—pulling on ligaments.
   - E. Left breast—reflex.
2. Leucorrhea.
3. Gastro-intestinal symptoms.
   - A. Dyspepsia.
   - B. Constipation.
   - C. Tenesmus.
   - D. Piles.
   - E. Proctitis.
   - F. Sensation of incomplete defecation.
4. Bladder symptoms.
   - A. Frequent micturition.
   - B. Vesical tenesmus.
5. Uterine disturbances.
   - A. Menorrhagia.
   - B. Dysmenorrhea from obstruction to menstrual flow.
   - C. Irregular periods.
6. Nervous symptoms.
   - A. Headache—vertical and occipital.
   - B. Neurasthenia.
   - C. Nervous dyspepsia.
   - D. Prostration.

DIAGNOSIS. Made by Physical examination.

Insert two fingers into vagina and find—

1. Cervix in normal position if flexion; pointing anteriorly if version.
2. Absence of fundus between anterior wall of vagina and abdominal wall.
3. Fundus posteriorly, found by introducing fingers still deeper in vagina toward hollow of sacrum at

the same time making deep supra-pubic pressure with the other hand.

This proves displacement which must be either version or flexion.

Version—A. Mass convex posteriorly.

B. Mass smooth, no angles, no obstruction to examining finger.

Flexion—A. Mass concave posteriorly.

B. Obstruction to examing finger at point of flexion.

TREATMENT.

For treatment retro-displacements are divided into—

1. Recent cases—when displacement has lasted less than one year and no adhesions have formed.
2. Chronic—as soon as adhesions have formed; or after one year. Ligaments overstretched and cannot be replaced or restored.

TREATMENT OF RECENT RETRO-DISPLACEMENTS. Indications—

1. Remove cause.
2. Replace uterus,
3. Keep in position.
4. Reduce size of uterus.
5. Internal treatment.

I. Remove cause; for instance, if caused by—

Lacerated cervix—amputate.

Lacerated perineum—repair laceration and restore perineum.

II. Replace Uterus—two methods.

1. Bimanual—insert two fingers in posterior cul-de-sac of vagina and push up on fundus, at the same time crowding up the tissues behind it by deep pressure with the other hand placed upon abdomen over symphysis.
2. Knee-chest position—open vulva by placing two fingers in vagina; the air rushing in may suffice to replace uterus unless fundus caught behind promontory of sacrum. To relieve this introduce speculum, retract perineum, grasp cervix with forceps and pull forward. This allows fundus to fall forward over promontory of sacrum correcting the displacement.

Exaggerated knee chest position sometimes will clear uterus from promontory. When uterus is replaced, help patient down gradually on side, then on back, and see if uterus is still in position.

III. Keep in position.

1. Pressaries best method.

Smith-Hodge pessary best; two essentials.

A. Keep utero-sacral ligaments taut.

B. Cause no discomfort to women.

2. Tampon when pessary can't be borne.
   A. Cotton-wool, cylindrical, placed beneath cervix in transverse diameter.
   B. Gauze, 6-7 inches wide, pack under cervix and hold in place by packing front and sides of vagina, around cervix.
3. Uterine sounds and repositors, absolutely condemned.

IV. Reduce size of Uterus by
1. Prolonged hot water injections.
2. Tampons of 10 per cent. ichthyol in glycerine.
3. Local application of Tr. Iodine.
4. Local depleton—if necessary.

V. Internal Treatment.
1. Look after bowels, skin, diet, exercise, etc.
2. Treat complications.

TREATMENT OF CHRONIC RETRO-DISPLACEMENTS, indications.
1. Remove cause.
2. Radical operation or ventral fixation.

Remove Cause.
1. Cervical disease; chief removable cause, trachelorrhaphy or amputation.
2. Endometritis—dilate and curette.
3. Laceration perineum—restore perineum.

VENTRAL FIXATION.
1. Incision, 2½-3 inches long, upward in median line, beginning about one inch above the symphisis, through skin, superficial fascia, aponeurosis of recti muscles, muscles, subperitoneal fat, to peritoneum and cut carefully through peritoneum. Insert two fingers and extend peritoneal incision with scissors, cutting between the two fingers.
2. Dissect loose a flap of peritoneum on each side.
3. Locate uterus and pull it up with two fingers, breaking up adhesions if any.
4. Pull out the two flaps of peritoneum.
5. Introduce sutures.

First suture passing down through one flap of peritoneum, then through ¼ inch of the fundus, in a median line dividing the uterus into anterior and posterior portions, and out through the other peritoneal flap, clamping both ends of suture to keep seperated from second suture.

Second suture, introduced ¼ inch above the first in peritoneum, ¼ inch behind first in uterus, and out ¼ inch above first in peritoneum; this gives an anterior tilt to the uterus. Clamp both ends.

6. Prevent stripping of parietal peritoneum from abdominal wall, from weight of uterus, by passing three sutures, ¼ inch from margin of wound, through skin, fascia, muscle and peritoneum and out on opposite side through peritoneum, muscle, fascia and skin. This pulls peritoneum fast against the abdominal wall and gives firm union.
7. Tie original utero-peritoneal sutues so as to give a certain amount of slack. To do this, tie tight against peritoneum, but don't use pressure.
8. Sew up abdominal wound, being careful to include peritoneum; three sutures to the inch.

The buried sutures become buried in lymph in five hours and cause no trouble.

The result of the operation is the formation of a new ligament from the gradual elongation of the peritoneum.

STRONG VENTRAL FIXATION is indicated in case of prolapse of uterus and differs from ventral fixation only in uterus being sutured fast to abdominal wall. The ovaries should be removed, if during child bearing period, to prevent pregnancy.

III. LATERAL DISPALCEMENTS—seldom pathological of itself, often accompanies retro-displacements.

IV. DOWNWARD DISPLACEMENTS OR PROLAPSE.

PARTIAL, uterus remains in pelvic cavity.

COMPLETE procidentia; a portion of the uterus exposed at vula.

Treat by removing cause and performing strong ventral fixation.

V. UPWARD DISPLACEMENTS; uterus forced upward by pregnancy or tumors.

Laceration of Cervix.

A rent or tear in lower segment of uterus below the internal os:

CAUSES:

I. Dependent upon parturition.
   1. Meddlesome midwifery.
      A. Too early rupture of bag of waters, which dilates cervix gradually.
      B. Too early application of forceps; cervix should be dilated or dilatable.
      C. Injudicious use of ergot; too often, too much, too soon. Ergot stops the intermittent contraction

4. Incomplete laceration diagnosed by probe passed into cavity, finger on side of cervix; if feel probe readily, probably a laceration.

ROGNOSIS—good; usually heal up and cause no trouble.

ESULTS—immediate and remote.

I. Immediate.
   1. Hemorrhage.
   2. Vesico-vaginal fistula, primary or secondary, from devitalized condition.
   3. Sepsis, causing uterine and tubal disease.
   4. Retarded involution.

II. Remote.
   1. Subinvolution.
   2. Eversion of cervical mucous membrane and cystic degeneration.
   3. Erosin of cervix.
   4. Endometritis; extension of inflammation from below.
   5. Menorrhagia, due to displacements or subinvolution.
   6. Chronic appendigeal disease due to sepsis.
   7. Sterility and abortions, too much blood to hold ovum, or endometritis may be present.
   8. Cancer; local inflammation theory borne out clinically.
   9. Pyosalpinx.

REATMENT.—General, Local and Operative.

I. GENERAL.—1. Build up system, care of bowels.
   2. Diet and hygiene.
   3. Plenty of rest.
   4. Keep off of feet.

II. LOCAL.—Treat complications.
   1. Cystic degeneration, puncture cysts, a few at a time.
   2. Erosion—iodoform, boric acid or silver nitrate.
   3. Congested condition.
      A. Scarify every week or so.
      B. Hot douche twice a day.
      C. Tampons of glycerine or glycerine and ichthyol.

III. OPERATIVE.

Indications for operation.
   1. All cases of erosion, eversion and cystic degeneration where local treatment fails.
   2. Extensive tears of any kind.
   3. Hypertrophy of cervix from laceration.

Contra-indication.

ease of tubes and ovaries; danger of starting acute ocess.

2. Young cases; try to cure without operation.

Operations.

1. Emmet's trachelorrhaphy; indications,
    1. Tears not extensive.
    2. Little hyperplasia.
3. Amputation of cervix; indications,
    1. All stellate tears.
    2. Marked hypertrophy.
    3. Extensive tears.

STEPS IN OPERATION FOR TRACHELORRHAPHY.

1. Map out portion to be denuded with bistoury, leaving central space for canal.
2. Denude on two sides going back of cicatricial tissue; denude from above down to angle, then start below and dennde up to angle.
3. See if enough denuded at angle to bring together nicely; use tenaculi and rotate first to one side then the other.
4. Insert sutures (silkworm gut) one each side.
   First, at angle.
   Second, at middle of denudation.
   Third, at top of denudation.
5. Shot sutures—beginning with first.
6. Irrigate with sterile water.
7. After-treatment—irrigate daily 1 to 4000 bichloride. to keep clean.

STEPS IN OPERATION FOR AMPUTATION OF CERVIX.

1. Amputate even with junction of vagina and cervix leaving stump large enough to hold pessary.
2. Cover stump with mucous membrane, four sutures in cervical canal and three on each side.
3. Shot sutures.
4. Irrigate with sterile water.
5. After-treatment—irrigate daily 1 to 4000 bichloride.

Disorders of the External Organs of Generation.

Cyst of Vulvo-Vaginal Glands.

Situated at lower part of labia majora.

CAUSE is always obliteration or occlusion of the duct.

1. Gonorrhea is the great cause.
2. Extension of inflammation, as from blow on vulva.

VARIETIES.

1. Superficial, affects the duct only.
2. Deep, affects both duct and gland.

SYMPTOMS.

1. A single cyst, which is multilocular.
2. Smooth, ovoidal, same shape as the gland, seldom transparent.
3. Contents are viscous and yellowish or chocolate in color.
4. Size varies from a bean to an egg.
5. Usually confined to one side and always situated in lower third of labia majora.
6. Inconvenience in walking from local irritation.
7. Interferes with coitus.
8. Usual tendency of larger ones is to suppurate; small ones do not.

DIAGNOSIS is given under that of vulvo-vaginal abscess.

TREATMENT, three methods.

1. Aspirate contents, then inject carbolic acid or iodine to cause a complete obliteration or closing up of the opening.
2. Incise, remove contents and pack with gauze.
3. Extirpate the gland; this is best if the patient is in good condition. While operating, be careful not to puncture cyst and thus lose its outlines; if you do puncture, you must use your eye to guide.

Abscess of Vulvo-Vaginal Glands.

CAUSE.

1. Gonorrhea in majority of cases.
2. Traumatism, as from kick or blow; newly married from intercourse; young and popular prostitutes.
3. Extension of inflammation from vagina, specific or simple; more common in lower classes, as gonorrhea is more frequent.

SYMPTOMS.

Subjective.

1. Heat.
2. Itching.
3. Throbbing pain.
4. Pain and distress, standing or sitting.

Physical signs.

1. Circumscribed swelling at middle or lower third of labia majora.
2. Redness.
3. Pain, intense on pressure.
4. Fluctuation.
5. Inguinal glands enlarged, but not painful.

DIFFERENTIAL DIAGNOSIS.

ABSCESS.	CYST.	BOILS.
1. All signs of inflammation, redness, heat, pain and swelling.	1. No signs of inflammation.	1. All signs of inflammation.
2. Acute process and short duration.	2. Chronic process.	2. Acute process.
3. Cannot be moved under the skin, adhesions.	3. Moves freely under skin.	3. Cannot be moved
4. Single.	4. Same.	4. Multiple.
5. Deep seated.	5. Either.	5. Superficial

ABSCESS.	HENRAI.	HYDROCELE.
1. All signs of inflammation.	1. No signs.	1. No signs.
2. Circumscribed swelling.	2. Not circumscribed	2. Not circumscribed
3. No.	3. Doughy feel.	3. Fluctuation.
4. No.	4. Tympany.	4. Flatness on percussion.
5. No.	5. Reducible.	5. Open variety is.
6. Situated at middle or lower third of labia majoria.	6. May vary.	6. Situated at upper part of labia.
7. No.	7. No.	7. Transmits light.
8. Acute history.	8. Either.	8. Chronic history.

ABSCESS.	HEMATOMA.	GENERAL DIFFUSE INFLAMMATION.
1. All signs of inflammation.	1. No sign.	1. All signs of inflammation.
2. Circumscribed.	2. Varies in size.	2. Diffuse.
3. Not so.	3. Appears suddenly	3. Not so.
4. Situation always at same point.	4. Varies.	4. Varies.
5. Not so.	5. Elastic.	5. Not so.
6. Inflammatory.	6. Bluish color.	6. Inflammatory.

RESULTS.

1. No danger to life.
2. Tend to rupture spontaneously and recovery.
3. Certain percentage don't heal after rupture, but reform in a short time.
4. Some cases end in resolution.

Duration, two to three weeks.

TREATMENT.

1. Before suppuration.

A. Paint with with tincture of iodine, then cover with mercuric ointment and bandage.
B. If inflammation is not absorted in twenty-four hours apply hot poultices with laudanum, which favor development.

2. After suppuration.
   A. Open freely, but leave enough support at each end to keep in packing.
   B. Curette thoroughly.
   C. Wash out with bichloride solution, 1-1000.
   D. Pack with gauze.
   E. After twenty-four hours remove gauze, irrigate and repack.
   F. Dress every day for some days, until granulations have formed nicely. *Should* an abscess occur after the operation or spontaneous rupture, or if there is a constant discharge from the gland, due to gonorrheal infection.
      1. Extirpate the gland.
      2. Be certain to remove all the glandular tissue.

Hematoma of Vulva or Blood Cyst.

A collection of blood in the subcutaneous cellular tissue.

CAUSES.

1. Traumatism chiefly, as falls or blows.
2. Labor; violent bearing down pains push tissues ahead, stretch and rupture vessels.
3. Straining at stool.
4. Lifting heavy weights.

SYMPTOMS.

1. Sudden appearance.
2. Small one gives no subjective symptoms, as it exerts no pressure on surrounding tissues.
3. Large one.
   A. Swelling.
   B. Pain intense.
   C. Interference with urination.
   D. Itching.
   E. Interferes with walking or crossing legs.

PHYSICAL SIGNS.

1. A distinct swelling.
2. No special situation.
3. Elastic.
4. Bluish clor, blood seen through the skin.
5. Painful to touch, increased by pressure.

DIFFERENTIAL DIAGNOSIS under ABSCESS of vulvo vaginal glands,

RESULTS.

1. Absorbed.
2. Clot organized and remains.
3. Suppuration, followed by sepsis.

TREATMENT.

1. Case following labor, and giving trouble.
   - A. Make small incision.
   - B. Evacuate and irrigate.
   - C. Pack tight with gauze to prevent hemorrhage.
2. Case, not puerperal, depends on size of hematoma.
   - A. Size of pigeon egg, or smalier, will be absorbed if let alone.
   - B. Larger ones tend to break down; operate on these as in case 1.

Hydrocele.

A collection of serous fluid about the round ligament and situated in the upper part of the labia majora. (Rare.)

VARIETIES.

1. Non-encysted, connects with peritoneal cavity.
2. Encysted, does not.

PHYSICAL SIGNS.

1. Tumor in upper third of labia majora.
2. Fluctuates.
3. Non-encysted disappears on pressure.
4. Dull on percussion.
5. Transmits light.

This condition gives a chronic history, but no subjective symptoms, because there is neither inflammation nor pressure, and but little inconvenience is given in sitting, walking, coitus, etc.

TREATMENT.

1. Encysted.
   - A. Puncture. B. Withdraw fluid.
   - C. Inject iodine or carbolic acid.
2. Non-encysted.
   - A. Assistant presses at external ring.
   - B. Puncture.
   - C. Draw off fluid.
   - D. Inject iodine or carbolic acid.

Hernia.

I. INGUINAL. Passes through inguinal canal, following the round ligament.

CAUSES are the same as male; patulous condition of canal of nück more likely.

CONTENTS.

1. Gut. 2. Omentum. 3. Ovary. 4. Oviduct.

SYMPTOMS are same as male.

DIAGNOSIS. Same as male, except situation at upper part of labia majora.

TREATMENT. Practically the same as male, except do not need to deal with cord.

II. VAGINO-LABIAL. This passes down in front of the broad ligament and always appears low down in the labia majora.

DIAGNOSIS is made only by recognition of gut in this position.

1. Tumor.
2. Doughy feel.
3. Impulse on coughing.
4. Reducibility.

TREATMENT.

1. Palliative.
   - A. Reduce.
   - B. Keep up with large ring pessary.
2. Radical.
   - A. Open abdomen.
   - B. Pull up gut.
   - C. Sew up opening.

Papilloma or Condyloma.

It is a simple hypertrophy of the skin and mucous membrane.

CAUSES.

1. Gonorrhea, as a rule.
2. Syphilitic condition.
3. Uncleanliness.
4. Pregnancy.
5. Sexual intercourse.

SYMPTOMS.

1. Situated in the vulvo-vaginal region, about the anus or on the legs near the external geditalia.
2. A cauliflower appearance.
3. Color, deep red.
4. Offensive discharge.
5. Itching and burning from irritation.
6. Pain and tenderness.

TREATMENT.

Thorough excision.

1. A sniff of cloroform.
2. Lift up and cut off with curved scissors.
3. Cauterize base with silver nitrate stick.
4. Dust with iodoform.

5. Put cotton between the labia.
6. Dress every day.
7. After a few days wash with bichlorid solution.

Vulvitis.

Inflammation of the external genitalia.

VARIETIES.

1. Simple.
1. Specific.
3. Follicular.
4. Diabetic.

I. SIMPLE.

Causes.

1. Any irritating discharge from vagina or uterus.
2. Cancerous discharge.
3. Urinary fistula; urine dribbles in, salts evaporate and irritation results.
4. Strumous diathesis.
5. Uncleanness, secretions irritate.
6. Pruritus, scratching induces.
7. Traumatism.
8. Obesity, friction of parts.
9. Excessive venery and masturbation.

SYMPTOMS.

Objective.

1. Those of inflammation.
2. Hyper-secretion of mucous or muco-purulent matter.
3. Patches of ulceration, if inflammation violent and pruritus induces much scratching.

Subjective.

1. Pain.
2. Itching.
3. Scalding urination, if urethra involved or in passing over vulva.
4. Parts glued together by secretion.

Duration.

1. A simple case, one to three weeks.
2. A chronic case in young patient, does not recover. cover.

Treatmeat.

The same as specific variety below.

II. SPECIFIC.

Cause, is the gonococcus.

Symptoms.

1. Same as simple, but intensified.
2. Urethra is usually involved, causing urethritis.

COURSE.

1. Extension to urethra, bladder, ureters and kidneys.
2. Extension to vagina, uterus, tubes and peritoneum.

TREATMENT.

Adults.

1. Remove cause.
2. Douche vagina and vulva with bichloride, permanganate of potassium, or chlorate of potash solutions.
3. Tampon vagina, if discharge is coming from there.
4. Keep lips separated by a little cotton wool.
5. If there are any excoriations, touch with silver nitrate stick.
6. Treat daily or according to the necessities of the case.

Children.

1. Constitutional.
   A. Diet. B. Hygiene. C. Medically.
2. Local.
   A. Don't use injections.
   B. Bring to edge of bed, protecting bed beneath.
   C. Cleanse parts thoroughly with sterile water.
   D. Squeeze sponge or cotton saturated with bichloride or silver nitrate solution thoroughly over the parts.
   E. Continue treatment for some time.

Chronic cases.

May be cured for a time, but soon return.

1. Cleanse parts thoroughly.
2. Apply solution of silver nitrate, at first 5 gr., later 10 gr. to the ounce, directly to the parts, by squeezing a sponge or cotton saturated with it.
3. Place a 5 or 10 gr. iodoform suppository in the vagina at night.
4. Douche copiously in the morning.
5. Separate lips with cotton wool.
6. Continue treatment as long as necessary.

III. FOLLICULAR—Most frequent in pregnancy.

Symptoms.

Objective.

1. Mucous membrane a deeper red.
2. Follicles swollen, resemble glands of Montgomery.
3. Follicles become pustular.

Subjective.

1. Heat in part.
2. Pruritus.
3. Pain from scratching.

4. Increased secretion, which later is irritating and offensive.
5. Vaginismus develops as case progresses.

Course.

1. If during pregnancy, may disappear with pregnancy, or local symptoms may be severe and abortion follow.
2. If not in pregnancy, may become chronic.

Treatment.

1. Copious vaginal douche of carbonate of potassium solution.
2. Separate external organs of generation by clean cotton wool.
3. Puncture follicles, a dozen or so at a time; this prevents violent inflammation following numerous punctures.
4. Cauterize base of follicles with silver nitrate stick.
5. Dress with 2 per cent. solution carbolic acid, saturating the cotton wool which separates lips.

IV. DIABETIC, arises from saccharine fermentation on the vulva.

Subjective Symptoms.

1. Pruritus
2. Burning.
3. Pain.
4. Health suffers from local symptoms.

Physical Signs.

1. Vulva, copper color.
2. Swollen.
3. Tissues become dry, wrinkled and thickened.
4. Extends to mons veneris, to anus, groin, etc.
5. Ulceration. result of scratching.
6. Boils often appear.

Treatment.

1. Treat the diabetes.
2. Treat the pruritus (as below), the principal symptom.

Pruritus Vulvae.

Itching of the vulva.

Depends on causes producing certain conditions of the terminal filaments of the nerves.

CAUSES.

1. Various discharges.
2. Diabetes.
3. Congestion of pregnancy, early and latter part.
4. Congestion of menstruation.
6. Parasites.
7. Local inflammation.
8. Incontinence of urine.
9. Vegetations.
10. Trauma.

5. Eruptive diseases of the skin.

Subjective symptom of itching.

1. May or may not be continuous.
2. Slight or severe.
3. Tends to increase.
4. More marked at night, from heat of bed clothing.
5. Increases at menstrual period, caution your patient.

Physical Examination.

1. See cause; irritation, secretion, vegetation, etc.
2. See lines and streaks, evidence of scratching.
3. Skin thickened and changed, and shows white spots.
4. If no lesion is seen, probabiy some central nerve lesion exists.

TREATMENT.

1. Find cause. 2. Remove it.
3. Cleanliness.

Cleanliness.

A. Wash parts thoroughly with water and soap.
B. Rinse with warm water.
C. Copious vaginal douche of potassium chlorate, dr. ss to the quart (the best), or boric acid gr, xvi. to oz. j, or lead salts, or carbolic abid.

Applications.

Begin with mild ones, and if they are not effective, go on to the more severe and radical.

A. Bichloride solution, 1-2000.
B. Carbolic acid, 2 to 8 per cent.
C. Cold or hot compresses or both alternated.
D. Dust with bismuth, calomel or chalk.
E. Equal parts of tincture of opium, aconite and iodine occasionally.
F. Silver nitrate, strong solution.
G. Galvanism or faradism, or alternate several times a week.
H. Silver nitrate, strong stick, when others fail.
I. Denude entire vulvar canal, under anesthetic, as a last resort.

Vaginismus.

A painful spasmodic contraction of vulvo-vaginal orifice, due to contraction of levator ani, vulvo-cavernosi and other muscles.

Always a symptom of some condition.

CAUSES. 1. Local. 2. General.

Local.

A. At orifice itself.
   1. Ulceration.
   2. Fissure.
   3. Inflamed hymen; torn in sexual intercourse, ulcerates and is as sensitive as an ulcer in the mouth.
   4. Myrtiform carunculae, a result of child birth; inflamed.

B. External organs of generation.
   1. Urethral caruncle, sensitive nerves.
   2. Varicose veins.

C. Anal fissures; irritated by stools, etc.

D. Coccygodynia, pain spreads to other parts.

E. Masturbation.

F. Disproportion between the orifice and penis.

G. Intercourse with impotent man.

H. Incomplete intercourse.

I. Chronic inflammation of vagina or vulva.

General.

1. Some central nerve lesion.

SYMPTOMS.

1. Variable.
2. Suffering slight or very severe.

PROGNOSIS.

1. Depends on cause.
2. Usually good.
3. Bad, if cause is a nerve lesion.
4. Good, if cause local.

DIAGNOSIS is recognition of the cause.

TREATMENT.

1. Find cause.
2. Remove it.
   A. If anal fissure, cut out and stitch up.
   B. If myrtiform carunculae, snip off tip and apply silver nitrate stick.

Coccygodynia.

Pain in the coccyx.

CAUSES.

1. Traumatism, generally from labor.
   1. Woman married late in life or bears first child late.
   2. Instruments.
   3. Disproportion between head and canal.

4. Falls, blows or kicks.
5. Horseback riding.

2. Rheumatism.
3. Hysteria.
4. Neurasthenia.
5. Reflex as from anal fissure or pelvic disease.

SYMPTOMS.

1. Pain in coccygeal region, especially on walking, riding, and sitting, may be slight or severe.

DIAGNOSIS depends on recognizing it to be primary or secondary.

1. Primary, if due to coccyx.
2. Secondary, if due to reflex causes, hysteria, gout, etc.
   - A. Hysterical case.
     1. Symptoms irregular, pain now and then
     2. Inconsistency in symptoms.
     3. No local lesion.

EXAMINATION.

1. Coccyx.
   - A. Note its mobility.
   - B. See if it follows curve of the sacrum.
   - C. Note any disturbance of relation to surrounding tissues.
2. Rectum.
   - A. For fissures.
   - B. For hemorrhoids.
3. Pelvis.
   - A. Tumors.
   - B. Disease of any kind.
4. Patients.
   - A. For hysteria.
   - B. For gout.

TREATMENT.

1. Lesion of the coccyx.
   - A. Remove the coccyx.
2. Hyperesthesia of surrounding parts.
   - A. Subcutaneous division of coccygeal attachments.
   - B. Hypodermic injection of morphine, cocaine or water.
   - C. Galvanism.
   - D. Actual cautery at exit of posterior sacral nerves.

Cystocele.

A prolapse of the posterior wall of bladder near the neck, accompanied by prolapse of the anterior vaginal wall.

CAUSE.

1. Labor the great cause.
2. Laceration of perineum from any cause.

DIAGNOSIS.

1. Introduce sound inte bladder.
2. Bring forward into site of cystocele.
3. Feel point of sound by finger on anterior vaginal wall.

TREATMENT.

1. Cure lacerated perineum; in some cases the vaginal walls, being supported, gain tone and cystocele disappears.
1. In old cases.
    1. Repair perineum.
    2. Do an anterior colporrhaphy, described under rectocele.

Rectocele.

A prolapse of the anterior wall of rectum accompanied by a prolapse of posterior wall of vagina.

CAUSE.

1. Labor is the great cause.
2. Laceration of perineum from any cause.
3. Constipation in some cases.

DIAGNOSIS.

1. Insert finger in rectum.
2. Hook forward until tip enters rectocele.
3. Push rectocele forward, absolutely diagnostic.

TREATMENT.

1. Repair perineum.
2. Do a posterior colporrhaphy.
    1. Mark out points at edges of rectocele.
    2. Put tissues of rectocele on stretch.
    3. Denude surface with curved scissors, being careful not to cut through into rectum.
    4. Denude first from right then from left.
    5. Begin to suture before finishing denudation.
    6. Suture denuded surfaces together.

Urethritis.

Inflammation of the urethra.

1. Acute. 2. Chronic.

I. ACUTE.

Causes.

1. Gonorrhea as a rule.
2. Extension of simple inflammation from the vagina.

3. Irritating discharges from vagina.
4. Traumatism especially in labor.
5. Infection after labor from sepsis, often.
6. Infection from careless catheterization.

Symptoms.

1. Painful micturition.
2. Infrequent micturition, painful, so holds it back.
3. Frequent urination if cystitis associated.
4. Bleeding on urination, if the inflammation is severe, as ulcers form, crack and bleed.

Physical Signs.

1. Finger in vagina can trace urethra along its anterior wall to the bladder.
2. Tenderness and pain on pressure.
3. Cord-like feel; not soft.
4. External meatus swollen and inflamed.
5. Oozing of pus from external meatus; if none is seen, pressure on urethra will bring it out.
6. Endoscope shows local inflamation of urethra, pus in folds and ulcerated spots.

DIFFERENTAL DIAGNOSIS.

	URETHRITIS.	CYSTITIS.	VESICO-URETHRAL FISSURE.
1.	Urination infrequent.	Frequent.	Frequent.
2.	Pain greatest during urination.	Pain ceases with urination.	Pain intense and localized especially after urination.
3.	None.	Tenesmus.	Tenesmus.
4.	Endoscope the final diagnostic point.	Csytoscope.	Endoscope.
5.	Examine urine.	Examination of urine shows involvement of the bladder.	Same.

A. Draw off with catheter.
B. Allow some to flow away.
C. Catch some to examine.

TREATMENT the same for all cases.

I. INTERNAL.

1. R—Tincturae belladonnae foliorum - f dr. v.
   Potassii bicarbonatis - - - - - dr. ii.
   Infusi pareirae - - - - - - - - f oz. iv.
   Sig. A tablespoonful in water four times a day.
2. Or sandal wood oil in flexible capsules or on sugar.

II. LOCAL.

1. Irrigate urethra with sterile water, using return catheter.

2. Irrigate with bichloride solution 1 to 6000 as hot as can be borne.
3. Apply iodine to vaginal walls.
4. Inject 15—20 drops into urethra.

II. CHRONIC.

Causes.

1. Generally follows an acute attack uncured.
2. Chronic irritation, as from neoplasms in urethra.
3. Inflammation of bladder, begins as subacute.
4. Idiopathic, seen in old women, probably due to some senile change or the condition of the urine.

Pathology.

1. Walls thickened.
2. Stricture, one only as a rule.
3. Pus accumulates in the folds of the mucous membrane.
5. Diseased urethral glands.

Symptoms.

1. Painful urination.
2. Pain, severe, but less so than acute.

Physical Examination.

1. Finger in vagina pressing against public bone shows tenderness of the urethra.
2. Meatus granular and denuded of epithelium.

Treatment.

1. Remove cause, if one exists; if a neoplasm or cystitis cure that.
2. Thickened walls and stricture (examine by endoscope)
   a. Dilate with sound.
   b. Anoint with mercuric ointment.
3. Granular condition of urethra.
   a. Introduce 5 or 10 gr. iodoform suppositories into vagina of patient (reclining) and allow to melt
   b. Or apply directly to uretha, through a wire bivalve speculum, silver nitrate solution 3 gr. to oz. i, or zinc sulphate, or lead acetate, or copper sulphate on a swab up to neck of bladder
   c. Or apply undiluted carbolic acid.
      1. Take cotton swab, not too large, with not too much wood on it.
      2. Wet end of length of urethra or applicator, so as not to enter the bladder.
      3. Swab meatus about the meatus to avoid [illegible] by acid.

4. As soon as swab is in the urethra, draw it out with a rotary motion.

4. Emmet's button-hole operation.
   - A. Cut opening into bladder from vagina.
   - B. Urinary fistula results.
   - C. Urine drops into vagina and is expelled.
   - D. Urethra is not used, hence can rest and thus stops the irritation.
   - E. Apply same treatment as above.
   - F. After a few weeks, denude surfaces of fistula, bring together and permit to close.

Vesico-Urethral Fissure.

1. Situated in upper part of urethra and adjacent part of bladder.
2. Runs lengthwise.
3. Lies in bottom of a fold of mucous membrane.
4. Always indurated with elevated edge.
5. Dilated it looks like a raw bleeding steak.

CAUSES:

1. Urethritis usually.
2. Trauma in labor, urethra jammed against pubic bone.
3. Careless use of catheter.
4. Intra urethral operations or manipulation of instruments.

SYMPTOMS:

1. Pain, in urination, at neck of bladder.
2. Vesical tenesmus.
3. Frequent urination, from irritation at neck of bladder.
4. Greatest pain is with last few drops and then subsides gradually until the next time.

EXAMINATION:

1. Etherize; too painful to introduce instruments without
2. Insert endoscope and pull out plunger.
3. Throw in light.
4. Examine all parts of the mucous membrane.

DIFFERENTIAL DIAGNOSIS is given under urethritis.

TREATMENT:

1. Strong dilatation cures generally.
2. If it doesn't, do Emmet's "button hole" operation.
3. Urethra is now at rest and irritation is removed.
4. Stimulate with silver nitrate, boric acid, etc.
5. After a few weeks fissure is cured, then close opening from bladder to vagina.

Procidentia Urethrae.

(A rare condition.)

Prolapse or inversion of the mucous membrane of urethra.

PATHOLOGY:

1. Occurs in adults or young children.
2. Want of tone in all the tissues.
3. It may involve all or only part of circumference of urethra.
4. After some time inflammation arises, due to strangulation by the external meatus, which contracts on the prolapsed membrane; in some cases it is so severe as to cause gangrene and sloughing.
5. Rapidity of such change depends on amount of prolapse and size of meatus, both of which vary.

SYMPTOMS:

1. Intense pain on urination.
2. Sexual intercourse interfered with.
3. Pain on walking, coitus, etc.
4. Nervous symptoms from pain.
5. General health is impaired.

DIFFERENTIAL DIAGNOSIS:

PROCIDENTIA.	URETHRAL CARUNCLE.	SYPHILITIC GROWTH
1. Affects whole circumference.	Limited to one point.	Growth occurs other places also.
2. Probe enters at center, but can't at side.	Probe enters at all points except at growth.	Negative.
3. History.	History.	History clears up diagnosis.

TREATMENT.

1. Cut off prolapsed edge; not much of it, as on pulling it out and cutting off, it may drop back.
2. Stitch edge to edge of meatus.
3. Use no half way measures.

Urethral Caruncle.

A vascular neurotic tumor affecting the urethra, arising from congestion of the urethral veins.

CAUSES.

1. Pregnancy.
2. Full bladder or rectum.
3. Displacements.
4. Uncleanliness.
5. Gonorrhea

PATHOLOGY.

1. May be single or multiple.

2. May have a broad base or a pedicle.
3. Size varies from small pea to olive.
4. May form at any part of urethra or meatus; more frequently at posterior part of meatus.

SYMPTOMS:

1. Pain on urination.
2. Sexual intercourse interfered with.
3. Pain on walking and coitus.
4. Nervous symptoms from pain.
5. Intensity of pain depends on the situation of the growth, not on its size.

Health breaks down.

PROGNOSIS, depends on situation.

1. Good, when low down and pendunculated; easily removed.
2. Not so good, when high up with broad base; harder to treat.
3. A tendency to recur in a certain number of cases, especially those with broad bases; caution your patient of this.

TREATMENT.

1. If it is not painful, let it alone as it may return after excision and be very painful.
2. Caustics and similar measures are useless, as it soon returns.
3. Excision.
   - A. If situated at meatus.
     1. Grasp with forceps.
     2. Cut off with curved scissors.
   - B. If situated deep in urethra.
     1. Dilate urethra.
     2. Excise.

Urethrocele.

A sacculation of the middle third of the posterior wall of the urethra.

1. A rare condition.
2. A dilatation may occur at lower, middle or upper third, while an urethrocele is limited to the middle third.
3. A cystocele is generally associated.

CAUSES.

1. Labor, the great cause.
   1. Large head, pressing on anterior vaginal wall and posterior urethral, pushes and dilates the tissues.

2. Anterior urethral wall is attached to pubes and hence is not affected.

2. Stricture at lower third.
   1. Urine passing rapidly under pressure from the bladder meets stricture and dams back, dilating the urethral wall.
   2. This continues daily until a permanent sac is formed, obviously in the posterior wall.

SYMPTOMS.

1. Urination scalding and painful, due to inflammation set up by decomposing urine, collected in sac.
2. Involuntary discharge of urine; the sac fills with urine, which, as a result of stooping over, misstep or any violent exertion, is discharged by the momentary obliteration of the sac.

PHYSICAL SIGNS.

1. Pouch middle third of urethra.
   A. Pass sound into sac.
   B. Feel sound by finger against anterior wall of vagina.
   C. A cyst is differentiated by not feeling sound as above.
2. Don't use endoscope, serves no purpose since you know there is inflammation there.

TREATMENT.

1. Pessaries or supports are useless.
2. Suppositories of tannin and alum not beneficial.
3. Dilation of anterior third and cauterization, barbarous

The three methods just mentioned are advocated by some.

4. Radical cure, the only common sense plan.
   A. Cure urethritis, which usually exists.
      1. Do Emmet's buttonhole operation to put urethra at rest.
      2. Treatment as given for urethritis.
      3. When cured, close opening as above.
   B. Remove sac.
      1. Cut away sac.
      2. Stitch edges together.

Cystitis.

Inflammation of the lining membrane of the bladder.

1. Acute. 2. Chronic.

I. Acute.

CAUSES.

1. Septic infection, often by careless use of catheter.

2. Trauma, as a blow.
3. Retention of urine.
4. Labor, bladder not empty and irritated by pressure.
5. Foreign bodies, as stone or anything pushed in.
6. Exposure to cold.
7. Cystocele, can't empty bladder entirely, decomposition and inflammation follow.
8. Gonorrhea, begins as vaginitis or vulvitis.
9. Disease of kidneys; pus makes urine irritable.

SYMPTOMS.

1. Local. 2. General.

Local.

1. Painful and frequent urination, can't hold it.
2. Vesical tenesmus.
3. Above symptoms vary in degree with the case.
4. Soreness and weight in perineum.
5. Backache.
6. Suprapubic soreness, especially on walking or riding.

General.

1. Chill.
2. Fever, not high.
3. Pulse, not very rapid.
4. Temperature shooting up suddenly during attack, indicates involvement of kidneys.

Examination of urine.

1. Reaction acid, unless retained, when it is alkaline.
2. Specific gravity unchanged practically.
3. Odor normal, unless retained.
4. Sediment shows mucus, pus, blood perhaps, and phosphates.
5. Chemical examination shows albumen, if blood and pus are present.

II. Chronic.

CAUSES, same as in acute.

LOCAL SYMPTOMS.

1. Same as acute, but less intense.
2. To elicit suprapubic soreness requires direct pressure.

Examination of urine.

1. Specific gravity low, probably due to hyperemic condition.
2. Alkaline reaction.
3. Color cloudy and dirty, may be blood.
4. Odor, ammonical.
5. Sediment more marked than in acute, consists of pus, blood and tissue; microscope shows pus corpuscles, blood cells, epithelial cells and mucus.

6. Albumen by chemical test from pus and blood present.
7. Microscopic examination shows if kidney is involved.

PROGNOSIS is uncertain in either variety.

1. Acute, depends on.
   1. Promptness of treatment.
   2. Whether kidney is affected; bad in such cases.
2. Chronic depends on.
   1. Cause, not of much importance.
   2. Condition of kidneys; better when normal.
   3. Condition of bladder.
      A. Carrying capacity often lessened in chronic cases.
      B. Lining membrane.

Bad as to rapid or permanent cure.

TREATMENT.

Acute.

1. Case due to labor, cold, trauam, or acute retention of urine.
   A. Absolute rest in bed; use bed-pan for defectation and urination.
   B. Salines, for free watery movements.
   C. Diluent drinks, waters with little solids, as Poland, etc.
   D. Liquid diet as milk, bouillon, lean meats, yolk of eggs.
   E. Medicines.
      1. R. Potassi bicarbonatis - - - gr. v.
         Infusi pareirae - - - - - f dr. iv.
         Tincturae belladonnae foliorum *m* ii.
         Sig. a teaspoonful every four or five hours.
      2. Opium suppository or dovers powder, gr. xx, giving gr. ii every hour till all taken, if pain is severe.
2. Cases due to septic infection.
   A. General.
      1. Absolute rest in bed.
      2. Salines.
      3. Liquid diet.
      4. Diluent drinks, as Poland water.
   B. Local.—The most important.
      1. Irrigation at once.
         A. Use glass catheter, rubber tube and funnel.
         B. Hold funnel not more than four feet above bladder.
         C. Don't use return catheter; want fluid to

expand bladder and affect folds of membrane in all parts.

D. Stop pouring when fluid ceases to flow into the bladder or it is full enough to hurt the patient.

E. Allow to run out and then wash out with sterile water.

F. Use bichloride solution 1-10,000 for several days.

G. Now change to creolin ½ per cent. solution for a day or two, if patient can stand it increase it to 2 per cent. rarely more than this.

H. Boric acid, saturated solution; common salt dr. i to quart; permanganate of potassium, add enough to a quart of hot sterile water to color and increase a little each day.

Chronic.

Cause has no bearing.

General.

1. Rest in bed for several weeks, removes constant irritation of supra-abdominal pressure.
2. Diet light and easily digested; plenty of milk, water in plenty, with little solid in it.
3. Correct alkilinity; benzoate of soda 10 gr. doses or boracic acid 10 to 20 gr. daily.

Local.

1. Make careful cystoscopic examination.
2. If any points of ulceration are found, touch with silver nitrate stick once a week until cured.
3. Irrigation daily with bichloride, creolin, boric acid, salt or permanganate of potassium, same as acute cases. In many cases the bladder is contracted and is cured by gradual expansion by this irrigation.
4. For such cases as are not cured by above treatment.
   1. Make a cysto-vaginal fistula.
   2. Bladder is now at absolute rest.
   3. Allow to remain so for several weeks.

Contracted Bladder.

A rare condition.

CAUSES.

1. Cystitis; changes in lining membrane.
2. Early incontinence of urine; lack of exercise and development.

TREATMENT.

1. Gradual dilatation or expansion by fluid (boric acid solution.)
   1. Use graduated glass reservoir, so you can tell just how much bladder contains each day, thus noting at end of a month the increase in capacity.
   2. Hold reservoir not over 4 feet above bladder for adult not more than 3 feet above for child; above this may not be safe.
   3. Fill bladder and allow to remain for fifteen minutes.
   4. Repeat daily.

Stone In Bladder.

A rare condition as compared with man.

1. Urethra is shorter and larger.
2. More dilatable.

CAUSES.

1. Same as in man.
2. Cystocele; some urine remains, mucous collects and a nucleus forms.
3. Foreign objects in bladder, as hair pin, slate pencil.

SYMPTOMS.—The same as cystitis.

1. Frequent and painful urination.
2. Vesical tenesmus.
3. Pain.
4. Bleeding in some cases.

DIAGNOSIS.

1. By sound; introduce and pass around until you get the characteristic click.
2. By touch; introduce finger into vagina, with other hand, above the pubes, push down and roll the tissues between internal and external fingers and stone can be felt.

PROGNOSIS.—Favorable if kidneys and bladder are in good condition.

TREATMENT.

1. Remove stone by vaginal route, as the urethra is too likely to be injured to use urethral route.
   A. Put staff in bladder.
   B. Bring down against vaginal wall.
   C. Cut through tissues on staff.
   D. Introduce fingers and deli6er, or use forceps.
   E. If a cystitis exists leave incision open.

F. Wash antisepticelly daily.
G. In a few weeks, cystitis is cured and opening can be closed.

Fibroid Tumors of the Uterus.

CAUSES: Not known positively.

PATHOLOGY:

1. Develop during actual menstrual life, usually about the age of 30.
2. Always grow from parenchyma, no matter what variety.
3. If fibrous tissue predominates, it is a fibromaand hard.
4. If muscular tissue predominates, it is a myoma and softer.
5. If fibrous and muscular tissues are about equal, it is a myo—fibroma.
6. Non-malignant.
7. Often have malignant disease associated.
8. Grow from any part of uterus.
   A. Fundus and body more frequently.
   B. Cervix less often.

VARIETIES:

1. Interstitial or mural, occupies body; all forms originate from this.
2. Sub-mucous, under lining mucous membrane, impinges on canal.
3. Sub-serous, under serous coat pushes, outward.
4. Intraligamentous, begins low down and separates folds of broad ligament as it grows from the side.

I. INTERSTITIAL:

1. Surrounded by loose cellular tissue, not closely connected with parenchyma; if adherent, due to inflammation and adhesions.
2. Easily shelled out.
3. Size varies from small nodules to involvement of entire uterus.
4. As they grow, are easily pushed to one or other surface, and may become sub-mucous or sub-serous, or remain as a simple bulging of walls.
5. Fibroid enlargement, when whole uterus is involved.

II. SUB-MUCOUS:

Arises from the interstitial by growth inward.

1. A simple bulging into canal.
2. Large and fills entire cavity.

3. Fibroid polyp, when situated in canal and attached to wall by a pedicle.

III. SUB-SEROUS:

Arises from interstitial by growth outward.

1. Broad base.
2. Sessile base.
3. Predunculated, tumor external and attached by peduncle to uterus.

IV. INTRALIGAMENTOUS:

1. Grow most frequently in the folds of the broad ligament.
   - A. May grow to great size and lift up ureters with it.
   - B. Be very careful in excising not to cut ureters.
2. May grow in vesico-uterine fold.
   - A. Often large size, which pulls up bladder with it and spreads it over its surface.
   - B. Be careful in opening to guard bladder.
3. Retro-peritoneal tumor, when grows from posterior wall of cervix and dissects under cul de sac of Douglas.

SIZE: Varies from small seed to 200 lbs. in weight.

GROWTH:

1. Usually very slow:
2. May become very rapid, after years of slow growth.
   - A. Due to pregnancy.
   - B. Due to degenerative change, as cystic.

HARDNESS: varies.

1. Fibroma, hard.
2. Myoma, softer.

SECTION:

1. Fibroma cuts like gristle.
2. Myoma cuts like muscle.
3. Myo-fibroma has a tendency to bulge.
4. Deep red or pale color depends on distribution of blood.

STUDY OF EFFECTS:

1. On neighboring organs.
2. Changes in themselves.

A. NEIGHORING ORGANS:

I. Fallopian tubes.

1. Inflamed, due to extension of endometritis, associated with fibroid.
2. Occlusion, due to inflamation.
   - A. Exudate poured out and tube swells.
   - B. Swelling continues until fimbria turn in and agglutinate.

3. Hydrosalpinx; tubes filled with water.
4. Hematosalpinx; tubes filled with blood.
5. Pyosalpinx; tubes filled with pus.
6. Dislocation may occur, adherence to other structures follow, may become lost and only recognized when tumor removed and tubes dissected off.

II. Ovaries.
1. Displacement by growth.
2. Adhesions from inflammation.
3. Flattened out by pressure against abdominal wall.

III. Peritoneum.
1. Inflammation from friction, producing chronic peritonitis.
2. Adhesions of uterus to viscera, due to peritonitis.
3. Intestines adherent, due to peritonitis.

IV. Bladder, from pressure.
1. Retention of urine.
2. Tenesmus, especially with large fibroid in vesico-uterine fold, which pulls up and spreads out bladder on its anterior surface.
3. Incontinence.

V. Rectum. Especially affected by retro-peritoneal fibroids.
1. Hemorrhoids from pressure on circulation.
2. Mucous discharge.
3. Constipation, loss of sensitiveness.
4. Toxemia from absorption of toxines.

VI. Ureters.
1. Fibroid nipping ureter between itself and bony pelvis.
2. Fibroid raising ureters on its anterior and upper surface.

VII. Kidneys.
1. Structural changes.
2. Changes in pelvis of kidney due to obstructed flow.

VIII. Heart. Small fibroids don't affect, large ones do.
1. Hypertrophy.
2. Degeneration, in advanced cases.

IX. Liver. Fatty degeneration, due to obstructed circulation.

B. Changes in Tumor Itself.

I. Endometritis.
1. Hypertrophic in character.
2. Danger of epithelioma from degeneration.
3. Danger of sarcoma from irritation.

II. Inflammation of tumor.
1. May cease; may effect whole mass, form pus and become gangrenous.

2. Probably due to cutting off blood supply, especially in large tumors.
3. From septic infection.
   A. A knuckle of gut adheres to tumor. Circulation interfered with, mucous membrane degenerates. Germ passes through intestinal wall into tumor and infects it.
   B. Intrauterine interference, dirty sound or hand.

III. Cystic degeneration.
1. Due usually to dilatation of lymph spaces.
2. Due occasionally to myxomatous change.
3. Cavernous fibroid, a variety of cystic, due to dilatation of blood spaces and formation of lakes of blood.

IV. Fatty degeneration.

V. Myxomatous degeneration.

VI. Calcareous degeneration—a deposit of lime salts in the tissues, especially in old women.

VII. Edematous.
1. Condition, same as in other parts of body.
2. Grow rapidly.
3. Large size.

PROGNOSIS.

I. As to effects on near and distant organs.
1. Interferes with circulation, heart hypertrophies.
2. May produce abortion.
3. May cause difficult or impossible labor.
4. May cause sterility by changes in endometrium and glands.

II. As to changes in tumor itself.
1. At menopause some change.
   A. May grow rapidly. B. May atrophy.
2. Menopause may be delayed by fibroid.
3. Usually no tendency to improve before menopause.

SYMPTOMS.

1. Hemorrhage.
2. Pain.
3. Results of pressure.
4. Leucorrhea.

I. Hemorrhage.
1. Menorrhagia is often first symptom of a fibroid.
   A. This may progress into a metrorrhagia.
   B. May cease for several months and suddenly reappear.
2. Due to various causes.
   A. Hypertrophic endometritis.
   B. Congestion from growth itself.
   C. Large capillaries, which hypertrophy with fibroid.

3. It occurs with the different fibroids in frequency as follows:
   - A. Submucous.
   - B. Interstitial.
   - C. Intraligamentous.
   - D. Subperitoneal.

4. Very severe in true myoma and edematous.

II. Pain.

1. Due to pressure on vessels, viscera and nerves.
2. Submucous occupies all or part of cavity of uterus and causes contraction.
3. General fibroid enlargement, deusely hard, constantly presses on nerve endings.
4. Local peritonitis.
5. Adhesion of uterus to intestines or near organs causes pain on every movement.
6. Intraligamentous put everying on stretch and cause great pain.
7. Increases at menses, the parts congested, inactive and more sensitive.
8. Headache, vertical or occipital shows pelvic trouble, but not distinctive of fibroid.

III. Results of mechanical pressure.

The situation and not size of tumor does the damage; as a small one in true pelvis more injurious than one three times as large in abdomen.

1. Rectum.
   - A. Constipation from toxemia by absorption.
   - B. Hemorrhoids from obstructed circulation.
   - C. Feeling of fullness and weight.
2. Bladder.
   - A. Retention.
   - B. Irritability.
   - C. Tenesmus.
   - D. Incontinence; carried up on tumor and capacity lessened.
3. Ureters.
   - A. Nipped and hydronephrosis may follow, or degenerative changes in the kidney.
4. Lower extremities.
   - A. Dropsy may result from obstructed circulation.

DEATH may arise from

1. Exhaustion.
2. Hemorrhage.
3. Changes in remote organs, as heart, liver, etc.
4. Changes in tumor itself, as inflammation, suppuration or gangrene.

DIAGNOSIS.

I. SUBMUCOUS.

History.

A. Marked hemorrhage. B. Mimic labor pains.

Physical examination.

A. Uterus enlarged slightly by small one, more by larger.
   1. Uniformly enlarged.
   2. Symmetrical.
   3. No irregularities on surface.

B. May mistake for malignant disease, if circulation is cut off and tumor breaks down, giving foul smell, while pain and hemorhage already exist.
   1. Dilate uterine canal.
   2. Explore with finger for tumor.
   2. Take scraping and examine microscopically.

II. INTERSTITIAL.

History.

A. Hemorrhage less severe than submucous.
B. Pain more constant and less severe.
C. More chronic, symptoms milder, gets along better.

Physical examination—bimanual palpation.

A. Intra-utterine no value.
B. Uterus always enlarged.
C. Submucous usually associated.
D. Uterus not symmetrical.
E. Surface nodular.
F. Usually very hard.
G. Cervix rarely affected, usually above.

Differential Diagnosis.

1. Pregnancy.
   A. Subjective and objective symptoms.
   B. Softening of cervix at each menses, remains so after conception.
   C. Wait for fetal heart sounds, when not certain.

   Pregnancy may coexist with fibroid, diagnose by
   A. Sudden increase in growth.
   B. Softening of cervix.

   See if woman can go to term safely. If not, operate at once.

2. Retrodisplacements.
   A. Examine for fundus anteriorly and mass posteriorly.
   B. If both found compare shape, size, outline, etc.
   C. If fundus is anterior, must be a tumor posterior.

GENERAL UTERINE ENLARGEMENT.

A. Whole fibrous structure enlarged symmetrically.

[illegible]

A. [illegible]

B. Carry [illegible]

C. Palpate externally while [illegible]

has been carried high up [illegible]

Posterior.

A. Chief point is [illegible]

B. [illegible] examination [illegible]

C. Uterus crowded to one side or other or pushed to top of tumor.

D. Pressure on rectum with characteristic symptoms.

Fibro-cystic—very rare.

Due to myxomatous change or dilated lymph spaces.

Fibro-cystic.	Ovarian Tumor.
A. History of long standing tumor taking on rapid growth.	A. Not so.
B. Bimanual examination shows tumor to be part uterus.	B. Distinctly separated.
C. Can separate cervix, but normal outline of uterus is gone.	C. Uterus is not enlarged and its outlines can be palpated.

Treatment.

1. Symptomatic.
2. Surgical.

Symptomatic Treatment.

1. Hemorrhage.
2. Pain.
3. Results of mechanical sure.
4. Leucorrhea.

I. Hemorrhage.

1. Medicinal.

A. Ergot.

1. Fluid extract best, dr. ss. t. i. d.
2. Ergotine 3 gr. t. i. d.; depressing hence add strychnine gr. 1-30.

B. Hydrastis Canadensis.

C. Cannabis Indica.

2. Curettement.

Contraindicated if tubes and ovaries diseased. Mucous membrane hypertrophied, causes increasing congestion, this in turn causing hemorrhages.

Removal of hypertrophied mucous membrane:

A. Controls hemorrhage.

B. Retards growth of tumor; less blood.

Steps—Dilate, curette, swab with Churchhill's tr. iodine and flush.

Relief at best only temporary.

3. Vaginal Douches.

Routine treatment, 2 gallon hot water morning, noon and night; long continued, to get secondary effect.

Should be kept up continually, menstrual period especially.

4. Tampon. Indicated in all cases; especially,

A. Excessive menstruation. Tampon when normal quantity lost.

Longer time and same quantity per day.

Same time, but twice the quantity.

B. Severe hemmorrhage.

C. Prolonged hemmorrhage.

Pack whole vagina, using compress and T bandage. Examine in twenty-four hours; replace if necessary.

5. REST.

A. Rest in recumbent position twice every day.

B. Absolute rest in bed during menstruation.

II. PAIN. Routine treatment.

1. Vaginal douches—hot water.
2. Tampons, ichthyol and glycerine, 10 per cent.

Pressure Pains.

1. Knee-chest position for ten or fifteen minutes three times a day.
   A. Relieves pressure and congestion for a time.
   B. When parts return to pelvis they don't assume exactly the same position.
2. When resting, lie on side or abdomen; removes weight from pelvis.

Local Peritoneal Pains.

1. Routine treatment.
2. Salines, causing watery stools once a day for a week, continued every other week.

III. RESULTS OF PRESSURE.

1. Kidney, Ureters, Bladder. Pain, tenesmus and frequent urination.
2. Rectum. Constipation, mucus stools, and piles.

Only treatment is *knee-chest position* three times a day and rest on side. Support is absolutely useless; if large enough to cause symptoms, too large to yield to pessary.

SURGICAL TREATMENT.

OPERATIONS UPON CERVIX.

1. Cervix alone (rare). Amputate, removing V-shaped piece.
2. Fibroid enlargement; complete amputation
3. Polypoid condition of cervix; grasp with tenaculum, make taut and remove with curved scissors.
4. Submucous variety; split capsule and remove.

OPERATIONS UPON WHOLE UTERUS.

Hysterectomy.	Myomectomy.
Morcellation.	Castration.

I. HYSTERECTOMY.

1. Vaginal.
2. Abdominal.
   A. Complete.

B. Incomplete or supra-va
1. Extra-peritoneal t
suture stump to ab
granulation. Ver
and hemorrhage.
2. Intra-peritoneal trea
stump with flaap

OBJECTIONS TO VAGINAL ROUTE.
1. Work in dark; hence unsafe f
2. Can't make tight ligations.
3. Sudden delivery of tumor.
4. Danger of injuring other orga
etc.
5. Sudden hemorrhage likely to
6. Forceps more prone to slip.
7. Difficult to drain, dressing cha

ADVANTAGES OF ABDOMINAL ROUTE.
1. Can see every step.
2. Little danger of hemorrhage,
3. Better drainage.
4. Less danger to other structure
5. Only scientific method.

OBJECTIONS TO ABDOMINAL ROUTE.
1. Permanent scar.
2. Danger of ventral herina, nc
recti.

COMPLETE HYSTERECTOMY, indicate
1. Malignant disease of uterus.
2. Septic metritis.
3. Septic fibroid.

OBJECTIONS.
1. Vaginal opening can't be st
make necessary friction.
2. Vaginal vaults fall down, causi
cele.
3. Shortens vagina, interfering w
4. Long operation, danger of dea
ether kidney, ether solution
5. Hemorrhage almost impossibl

Incomplete hysterectomy much bette
any objections to complete.

STEPS IN OPERATION FOR SUPRA-VAG
AFTER ENTERING ABDOMINAL CAVI
1. Ligate broad ligament on bo
including ovarian arteries.
2. Cut between ligaments and fu
artery.

MORTALITY.—Alway a certain amount of mortality due to:

1. Accidents of some kind.
2. Size, extent, adhesions, etc.
3. Physical condition of patient, ability to withstand shock, etc.

FORM OF TREATMENT—Decided by:

1. Environment.
   Laboring women, little time or money, operate.
   Rich women, plenty of time and money, try medicical treatment before operating.
2. Age, try to wait uutil menopause, may shrivel up and disappear.
3. Condition of tumor, size, consistency, etc.
4. Character of tumor.
   - A. Myoma; to operate causes hemorrhage hard to control.
   - B. Large fibroid; operate.
   - C. Small fibroid giving pressure symptoms; operate.
   - D. All undergoing degenerations; fibroid, cystic, etc.; operate.
5. Pregnancy as a complication.
   - A. If passage clear below, let her go to term.
   - B. If canal obstructed by tumor in wall of lower segment, or by sub-mucous or sub-peritoneal tumor, operate at once.

CHOICE OF OPERATION.

1. Castration does good.
   - A. If only small growth.
   - B. If not soft fibroid.
   - C. If tumor not degenerating.
2. Morcellation, not advised at all.
3. Myomectomy, clearly indicated in selected cases; remove growth.
4. Hysterectomy advised in vast majority of cases.
   - A. Supra-vaginal operation with intra-peritoneal treatment of stump best.
   - B. Complete, never unless septic uterus, septic fibroid or cancer.
   - C. Vaginal, not advised.

Cancer of Uterus.

Two-thirds of all women who die of cancer die of cancer of uterus

CAUSES.—Real cause unknown: probable causes.

1. Movement up and down of uterus with diaphragm, causing continual bumping against sacrum.
2. Erosion of cervix.

CARDINAL SYMPTOMS.

I. PAIN. Uncertain symptom, sharp and lancinating, may be absent; depends upon
   1. Extent of disease; if rapid breaking down of uterine tissue, little pain; if slow, chronic course, pain severe.
   2. Amount of exudate.
   3. Atresia of cervix or its canal. This may cause colicky pain.

   Location.
   1. Back usually.
   2. Sacro-lumbar joint.
   3. Pubes, rarely.
   4. Anterior part of thigh.
   5. Groin.
   6. Head, vertical or central.

II. HEMORRHAGE generally occurs first after sexual intercourse, but does not occur until there is some ulceration.

   Cause.
   1. Ulceration.
   2. Congestion from cancerous tumor.

III. DISCHARGE.
   1. Leuccorrhea, often normal in married women, from activity of uterine glands due to coitus, child bearing, etc.
   2. Cancerous discharge; the leucorrhea increases in quantity, changes character, becomes watery, of a vile odor and very irritating to external parts. It is caused by breaking down of tissue.

   Contents.
   1. Blood.
   2. Debris, shreds of tissue.
   3. Pus.
   4. Mucus.

IV. CACHEXIA—Dependent upon stage of disease.

   Symptoms.
   1. Vulvar waxiness, occurs also in violent hemorrhage, which exsanguinates the patient.
   2. Facial cachexia.

PHYSICAL SIGNS.—Examine with finger; speculum may cause hemorrhage.
1. Blanching of external genitals.
2. Cervix irregular and snout-like.

DIAGNOSIS.—Complete only when scrapings examined microscopically.

Depends upon *history* and *physical examination.*

POLYP diagnosed by having a ring, the cervix, around growth.

INVERSION OF UTERUS—Can't find fundus.

PROGNOSIS.—Death usually within a year and a half.

TREATMENT purely operative.

1. Radical; total hysterectomy, if early and limited to uterus.
2. Palliative, if other tissues involved, as vagina and broad ligament.

Curette.

1. Flush.
2. Curette until have a crater-like opening and are down to sound tissue, taking care to avoid bladder anteriorly, and rectum posteriorly.
3. Irrigate thoroughly.
4. Pack with cotton.
5. Flush every day with bichloride, 1-2000, followed by sterile water.
6. If hemorrhage, pack.
7. If pain, opium suppositories.

Ovarian Cysts.

KINDS.

Pelvic; small, pelvic in origin, located in pelvic cavity.
Abdominal; usually large, pelvic or abdominal in origin, located in abdomen.

SYMPTOMS.

1. UTERINE; menstruation usually not afiected.
   - A. Menorrhagia, due to congestion caused by irritation of tumor.
   - B. Sterility, both ovaries usually involved.
2. REFLEX.
   - A. Pigmentation of areola.
   - B. Enlarged breasts.
   - C. Often secretion of milk.
3. PRESSURE.
   - A. Gastro-intestinal tract.
     Irritation of stomach and intestines.
   - B. Diaphragm, causing dyspnea and cyanosis.
   - C. Urinary tract.
     - A. Kidneys become diseased from pressure upon kidney itself or ureters (usually).
     - B. Bladder irritable, frequent micturition or difficulty in starting flow. Capacity may be reduced.
4. GENERAL CONDITION.—Run down, often emaciated, especially in abdominal variety.

PROGNOSIS.

1. LIFE, very good if early removed; bad if neglected.
2. ACCIDENTS.
   - A. Inflammation from fall or blow.
   - B. Rupture from trauma.
   - C. Suppuration, with peritonitis.
   - D. Torsion of pedicile, may slough if circulation is cut off.
3. DEATH caused by exhaustion (usually), peritonitis, embolism and suppuration.

DIAGNOSIS.

1. PELVIC VARIETY.—Bi-manual examination.
   1. Shape of tumor; always assumes shape of organ from which it springs, round or ovoid.
   2. Smooth surface.
   3. Fluctuation.

   Separate.

   Retro-displacements, by finding fundus posteriorly.

   Enlarged Fallopiau tube, sausage-shaped with constrictions.
2. ABDOMINAL VARIETY.—Palpation; etherize if necessary.
   1. Boundaries, located by uluar palpation, below and on sides of tumor.
   2. Origin, follow from above downward, if goes down to symphysis, uterine in origin.
   3. Surface; multiocular.
   4 Fluctuation; wave differing in intensity in all directions, very important.

      ASCITES; wave same intensity in all directions.

      FAT; wave stopped by ulnar surface of assistant's hand.

VAGINAL EXAMINATION.

Ovarian cysts.

1. Cul-de-sac not obliterated.
2. Uterus more or less displaced in some direction.
3. Uterus not enlarged.
4. Uterus more or less immovable, from pressure of cyst.

Ascites; arches of cul-de-sacs buldge downward.

TREATMENT, SURGICAL.

1. Open in median line.
2. Tap and drain off fluid.
3. Bring out sac.
4. Ligate pedicle; remove.
5. Sew up wound.

1. Effervescing salts of magnesia best, dr. j, every hour until movements free, and then dr. ij every morning.
2. Magnesium sulphate,
3. Enema consisting of:
   R Hot soapsuds - - - - - - - - Oj,
   Mag. sulph - - - - - - - - dr ij,
   Turpentine - - - - - - - - oz j,
   Use daily. On morning of operation give enema and salts.
4. Calomel, if salts objectionable, gr. iij, at once, followed every half hour by gr. ss until eight doses taken; to be followed by copious enema.

B. Strychnine sulphate. Beside its tonic action on heart and nervoue system, it has a direct action on intestines, increasing peristalsis, loosening bowels and decreasing any tendency to tympanites. Give gr. 1-15 t. i. d. hypodermically.

5. STIMULATION best secured by hypodermic injection of
   R—Strychninæ sulphatis - - gr. 1-10
   Quininæ sulphatis - - - gr. 1-6.
   Given just before beginning ether to strengthen heart and overcome shock.
6. PREPARATION FOR OPERATION.
   1. Scrub abdomen until quite red with soap solution and water.
   2. Sponge with alcohol.
   3. Wash with bichloride, 1-1000.
   4. Dress with sterile gauze, cotton and towel.
   5. Sterilized binder.
   6. Sterilized stockings.

II. TREATMENT AFTER OPERATION.

1. PUT IN BED AND WATCH by special nurse for 24 hours.
2. GIVE NOTHING BY MOUTH for 24 hours or until bowels opened.
3. FOR THIRST moisten lips with towel wrung out of ice water; if intense, give 4-6 dr. warm water by rectum every 3-4 hours. Don't give ice water by mouth, induces vomiting.
4. BOWELS should be opened 24 hours after operation.
   A. Calomel, gr. iij, followed by gr. ¼ every half hour until 8 taken, followed within an hour by enema.
   B. Effervescing salts of magnesia, dr j, every hour until bowels opened well.

c. Glycerine, oz j, by rectum If these all fail,

d. Fel bovis, gr. j, every hour for 6 hours, followed in an hour by enema as follows:

R—Fel bovis - - - - - - gr. vi
Glycerine - - - - - - oz. j
Mag. Sulph - - - - - oz. j
Hot water - - - - - Oj

5. STIMULATE with strychnine, gr. 1-15 t. i. d. for a week to avoid shock, prevent intestinal paresis and tympanites.
6. DIET—after bowels opened.
   1. Liquid peptonoids, oz. ss, 6 times a day for several days, tea, ice water or mineral waters.
   2. Beef tea, peptonized milk or milk with ⅓ lime water to prevent gas.
   3. Clear soups, bouillon, chicken berth—alternate with peptonoids.
   4. If vomiting continues feed by rectum, giving nothing by mouth.

      R—Bovinine - - - - - - oz. ss
      Whiskey - - - - - - oz. ss
      White of 2 eggs.
      Peptonized milk - - - oz. iij
      By rectum every 3 hours.
      If bowel is irritated, add laudamum, dr. ss

   5. Begin more substantial diet in about a week.
7. REST AFTER OPERATION.
   1. Bed at least 3 weeks to insure strength to abdominal wall.
   2. Stitches removed about eighth day.
   3. Leave hospital a week after out of bed.
8. COMPLICATIONS.
   1. Vomiting—brandy or iced champagne in small, frequent doses.
   2. Pain—avoid giving opium, as it locks bowels and masks symptoms; if, however, pain becomes unbearable, give morphine, gr. ⅙, hypodermically.
   3. Peritonitis—don't reopen wound if late, but give a chance for life without adding shock.

Catherization.

Patient in bed or on table.

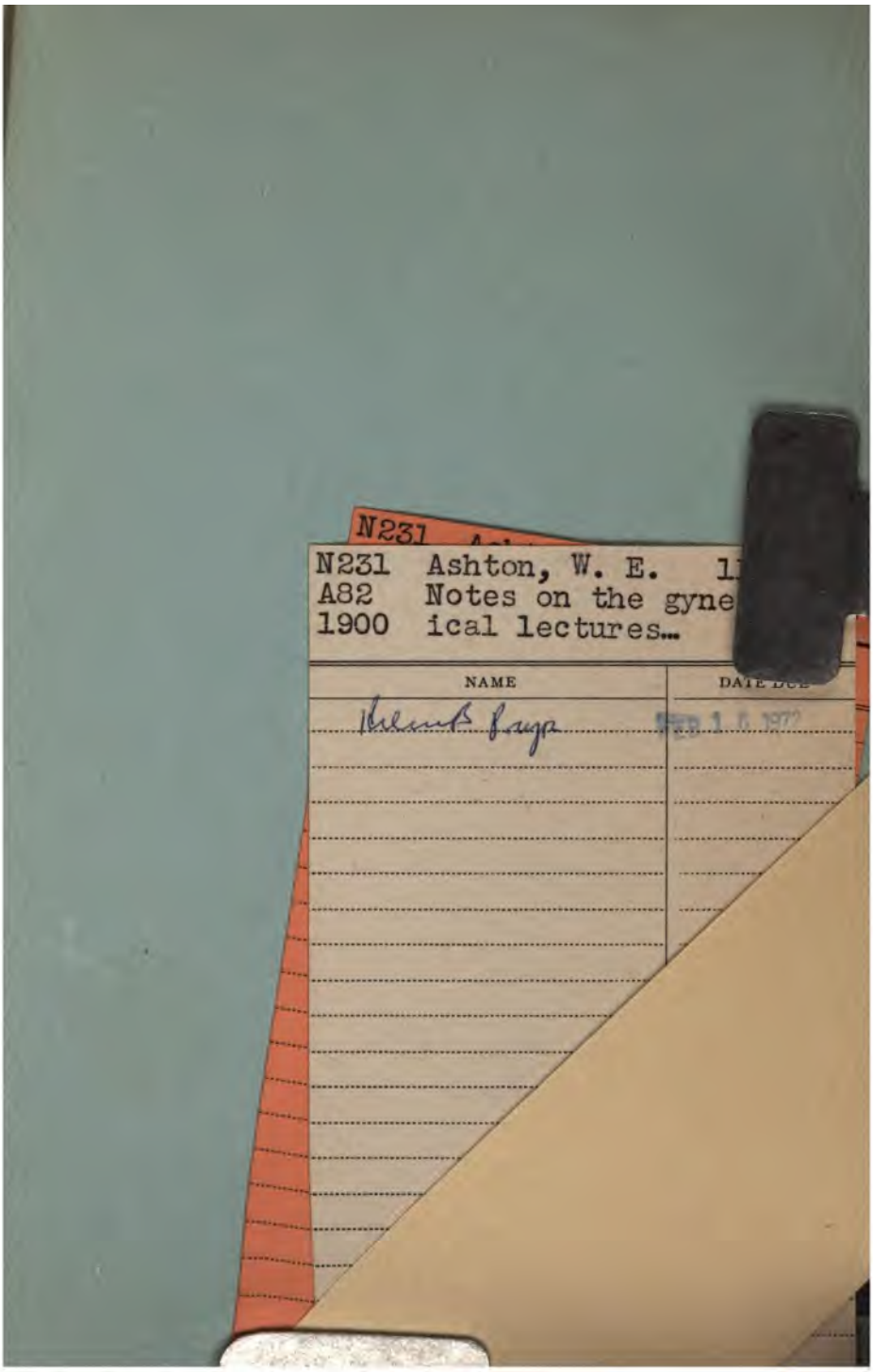
1. Patient in dorsal position, knees up and apart, feet together, giving good exposure.

2. Open vulva.
3. Cleanse with soap and water.
4. Mop with solution of bichloride.
5. Introduce glass catheter, which has been boiled.
6. Allow urine to run out.
7. Place finger over end of catheter, to prevent any urine dropping, and remove.

INDEX.

NOTE TO SECOND EDITION.

The first edition having been exhausted, a second edition has been published upon the solicitation of the members of the Senior and Junior classes. It contains notes on all the lectures and clinics given by Prof. Ashton from date of first edition to December first nineteen hundred.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